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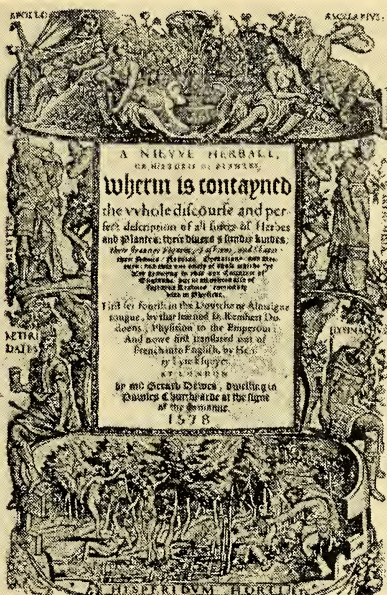
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APRIL 24, 1943

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Diary) 25/-. Single Copies 9d.



Title page to Henry
Lyte's translation of
Dooden's "Cruyde-
boeck" 1578. (The
Chemist & Druggist,
June 24th, 1922.)

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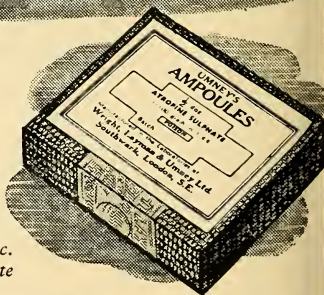
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ALL THE YEAR ROUND . .

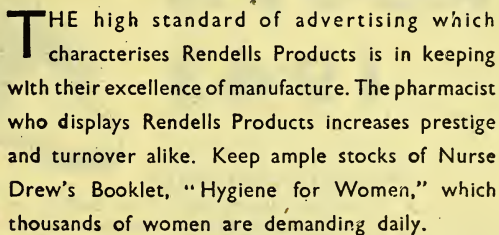
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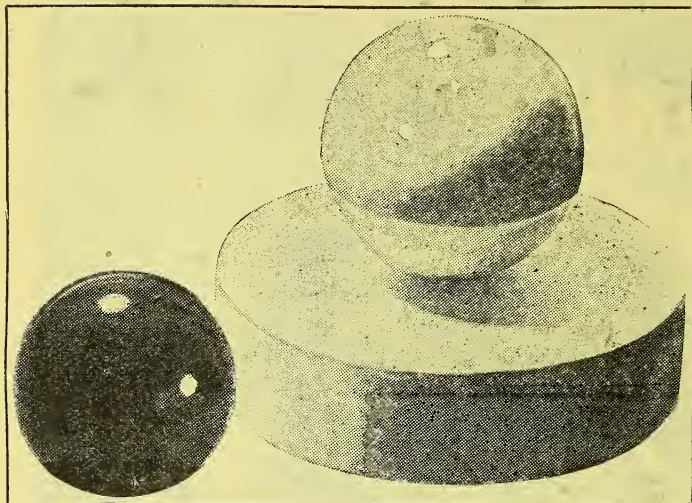
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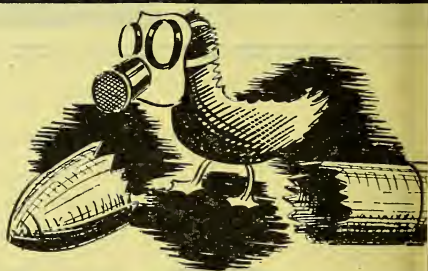
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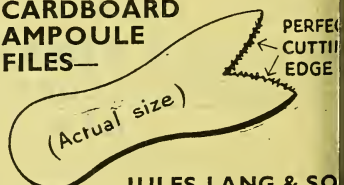
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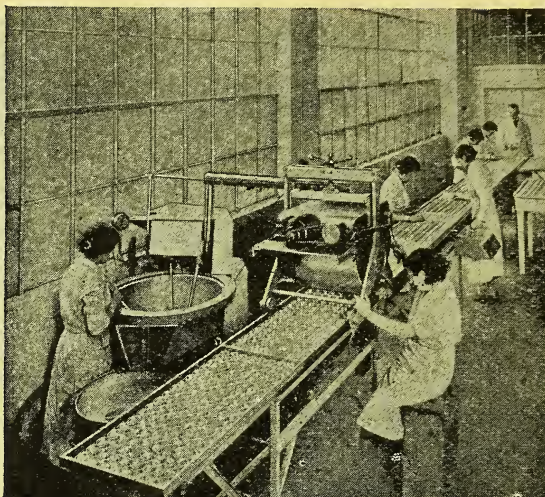
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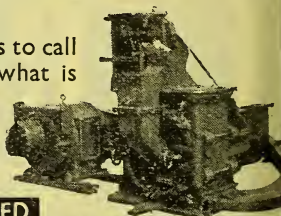
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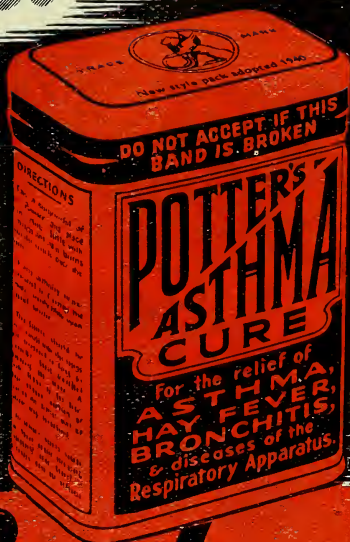
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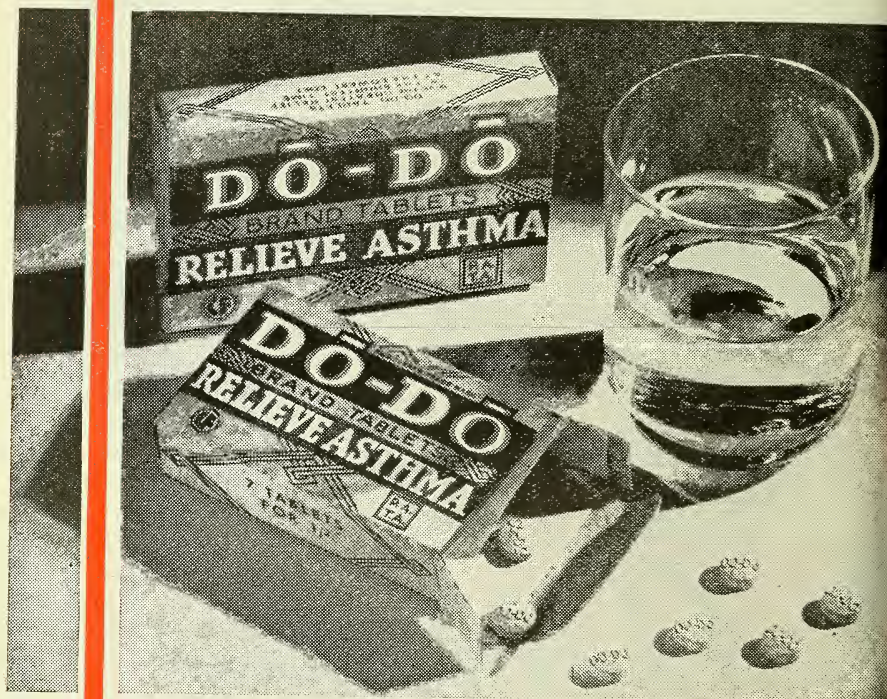
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P.A.T.A.



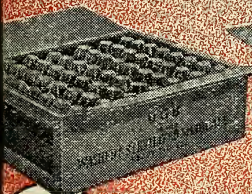
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HAN EVER IS THE
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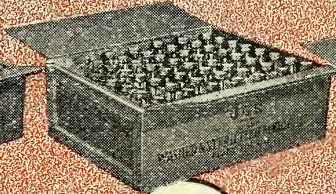
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WHITE
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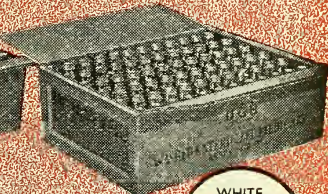
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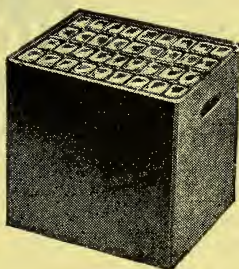
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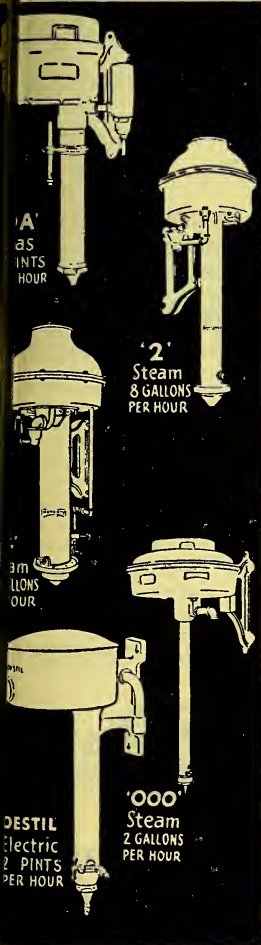
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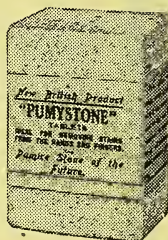
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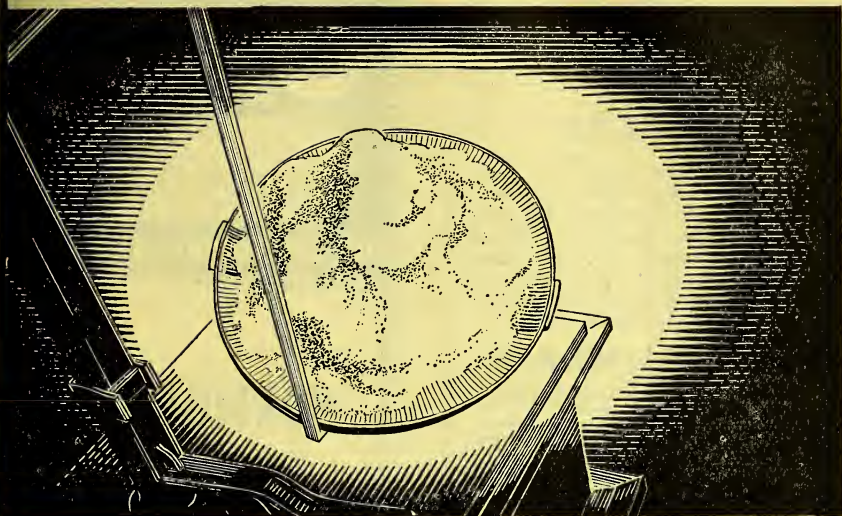


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NEWS OF THE WEEK

Tax-free Deaf-aid Appliances.—The Treasury has given notice of its intention to make an Order that purchase tax shall cease to be chargeable on electric batteries not less than 30 volts and not more than 100 volts specially designed for high-tension supply for deaf-aid appliances, and using cells not larger than 40 mm. overall in length by $13\frac{1}{2}$ mm. in diameter. Any representations interested parties desire to make should be addressed in writing to the Commissioners of Customs and Excise, City Gate House, Finsbury Square, E.C.2, not later than April 29.

Purchase Tax on Luxuries.—The Central Price Regulation Committee point out that the increase in the purchase tax on certain price-regulated articles will not affect the price of such goods already in the hands of retailers. When the retailer buys new stocks on which he has to pay the increased purchase tax he is entitled to recover from the public the full amount of the tax he has

to pay, but until such time he must not increase the amount of tax. To do so would be an offence under the Goods and Services (Price Control) Act, 1941.—The following decisions regarding the liability of certain articles to tax are supplementary to decisions already given: Household articles of leather of a kind commonly sold as "fancy goods" are chargeable at the rate of 100 per cent. under Class 16 (b).

Gauge and Tool Makers' Association.—Officers of the Gauge and Tool Makers' Association, Ltd., which was formed in August 1942 at the request of the Ministry of Supply to represent the interests of manufacturers of gauges and measuring equipment, jigs and fixtures and special tools, press tools, moulds and dies are as follows: *President*, Mr. H. H. Harley, C.B.E.; *Chairman*, Mr. F. W. Halliwell, M.I.Mech.E., M.I.P.E.; *Vice-chairman*, Mr. H. S. Holden; *Secretary*, Mr. Gilbert T. Beach. Membership comprises fifty firms.

Pharmaceutical Society Examination Results.—The following candidates satisfied the Examiners in the Chemist and Druggist Qualifying examination held in England in April:—

D. S. Benbow, Rhondda; A. J. Bolt, Princetown; Joseph Brooks, Brockley; C. F. Bull, Cosby; W. G. Catchpole, Walthamstow; Vida Connick, Bearwood; Stanley Cooper, Bury; Jack Corson, Sutton-in-Ashfield; D. J. Farquharson, Glastonbury; Kenneth Fenwick, Haslingden; B. E. Hebert, Purbrook; Henry James, Peterborough; R. H. Knight, Newton Abbot; Charlotte Riesenfeld, Hertford; J. G. Sutherland, Camberwell; E. T. W. Taylor, Cardiff; E. V. H. G. Wherry, Plymouth; J. H. Dennis, East Sheen.

Flash Lamp Bulbs.—The Board of Trade has made an order under the Goods and Services (Price Control) Act, fixing the maximum price for flash lamp bulbs on sale to wholesalers, to retailers, and to the public. The Order covers all types of bulb designed for use in battery lamps and torches except those for police lamps, motor car lamps and radio sets. Prices have been divided into three groups according to the origin of the flash lamp bulbs. The maximum retail price of the ordinary non-focusing bulb of 2.5 or 3.5 volts and 0.2 or 0.3 amps will be 5½d. if of American or Canadian origin; 3½d. if of British manufacture; for bulbs imported from elsewhere the maximum retail price will be 3½d. each until June 30, 1943, in order to allow time for the disposal of stocks bought at high prices; but on and after July 1, 1943, the maximum retail price will be 2½d. each.

Names Removed from the Register.—A meeting of the Statutory Committee of the Pharmaceutical Society was held at 17 Bloomsbury Square, London, W.C., on April 7. Mr. G. R. Hill, C.B., presided, and there were also present Messrs. W. Deacon, A. R. Melhuish, E. Saville Peck, and the acting secretary, Mr. W. R. Roberts. The first case considered by the Committee was that of William Edwards, Parkview Court, Hurlingham, London, S.W.6, who had been convicted at the Central Criminal Court of performing an illegal operation, from which a woman died from shock. The facts of the case having been given by Mr. Francis S. Laskey, Mr. R. L. Parry, on behalf of Mr. Edwards, pointed out that the accused was not a professional abortionist, and had made no gain from the occurrence, nor had he used his profession as a cloak to obtain this class of practice. He asked the Committee not to strike Mr. Edwards off the Register; alternatively to be willing to consider application for reinstatement

later. The Committee considered the verdict in private and on their return the chairman said they had listened to the address which counsel had made—an extremely able address—but in view of the conviction on one of the most serious offences a chemist can commit, the Committee felt they had no alternative but to order the name to be removed from the Register. The second case to be considered was that of James Symon, 517 Cable Street, Stepney, London, E.1, who had been convicted at the Central Criminal Court of unlawfully killing a woman on whom he had used an instrument with intent to procure miscarriage. The third was that of Herbert Shepley Watson, 69 Haverstock Hill, London N.W.3, who had been convicted at the Central Criminal Court of using an instrument with intent to procure the miscarriage of three women. The Committee decided that in each case the name of the person concerned must be removed from the Register.

Irish Drug Association.—The committee of the Irish Drug Association, at a recent meeting, nominated the president (Mr. F. X. Meagher) for membership of the Employers' Panel under the Trade Union Act, 1941. The committee considered a number of complaints received regarding profits on soap, but decided it was powerless to do anything to bring margins to pre-war levels, since retail prices are controlled between manufacturers and the Department of Supplies. An invitation to the president and some members of the committee to attend a meeting of the Limerick Chemists' Association was accepted. Kodak Ltd., wrote thanking the Association for help given in trying to obtain supplies of films and photographic materials from America. At present the necessary permission for importation is not to be granted. Correspondence between the Association and Tubex, Ltd., regarding the collection of empty collapsible tubes was referred to the wholesale section for consideration.

Proposed Guild of Eire Pharmacists.—The proposal to establish a Guild of Pharmacists in Eire, in which all interests concerned in the manufacturing, wholesale, distributing and retail sections of the chemical and drug trade, and all employers and employees would be represented, has been under consideration in Dublin for some months past. It was decided to form a small sub-committee to get into consultation with all the interests involved to ascertain their views.

EMPIRE AND FOREIGN NEWS

Commissions for Australian Army Pharmacists.—The Director-General of Medical Services has announced that commissions have been approved for pharmaceutical chemists serving in all units in the Australian Imperial and Militia Forces. The appointment of a pharmaceutical staff officer on the staff of the Director-General of Medical Services is another forward move. The Pharmaceutical Association has also been informed that whenever possible the services of qualified pharmaceutical chemists will be utilised for specialised work in Army Medical Corps units, if suitable men are available. For this purpose the military authorities will communicate with the State Pharmaceutical Societies when requiring men for these duties.

Indian Chemical Manufacturers.—In his presidential address at the fourth annual meeting of the Indian Chemical Manufacturers' Association held in Delhi in November 1942, Mr. J. N. Lahiri stated that the war had given impetus to the development of pharmaceutical industry in India. Indian manufacturers had given a good proof of what they could do in developing a "key" industry in national progress, health and defence. He gave figures to show there was ample scope for further progress in the manufacture of organic and organic acids, alkalis, salts, alkaloids, sugars, essential oils, and synthetic organic chemicals. The chief difficulty facing the industry arose from the fact that India's mineral resources had not yet been sufficiently exploited. Basic industries, on which other finished industries depended, were not yet properly organised. It was essential to develop a long-range policy of industrial development from indigenous materials if India was to play a really useful part in national defence. Mr. Lahiri urged that the Government should assist by removing barriers in the way of progress. Medical Store Depôts need no longer engage in manufacturing, as almost all their requirements were now available from Indian manufacturers at competitive prices. Protection must be given wherever possible. The Board of Scientific and Industrial Research should engage itself in working out problems of a more practical nature, and the Government should make its findings freely available to Indian manufacturers for industrial exploitation. Mr. Lahiri concluded that the phrase

"Made in India" would soon be considered synonymous with quality. Commercial concerns manufacturing biological products and chemotherapeutic remedies should be given scope to have their products tested at the Central Drugs Laboratory on payment of fees. An organisation for therapeutic research and clinical trial of drugs in Government hospitals and clinics should also be set up.

Social Security Charter for Canada.—Before a special House of Commons Committee of the Canadian Parliament recently, the Minister of Pensions laid down the broad outlines of a "Social Security Charter" for Canada. The central point of the scheme is a system of National Health Insurance submitted in the form of a draft Bill prepared by an advisory committee on health insurance. Accompanying the Bill is the health committee's survey of health insurance throughout the world, with estimates of the cost for Canada and various charts and maps. The committee's plan for the creation of a system of National Health Insurance is summed up by the Minister as follows:—A Federal statute as the foundation stone of the structure; a broad programme of preventive health measures; health of the people to be the primary consideration. The advisory committee recommends that the Dominion Government shall be empowered to assist financially any province which enacts a health insurance measure along the lines of a model provincial Bill which has been drafted. It is provided, however, that no aid shall be given unless the province also agrees to undertake a general public-health programme approved by the Dominion. A grant-in-aid of this programme will also be given. The provincial scheme contemplated in the Committee's recommendations covers the entire population, but leaves the way open for a province to limit the benefits to those having less than a certain income ceiling. The model provincial bill is drawn up on a basis of compulsory contributions. A husband, if he can afford it (under a standard laid down) will pay for his wife, but the cost of children will be distributed over the whole contributing population. The benefits consist of complete medical and nursing services; hospitalisation on a general-ward basis; medicine from an approved list of standard remedies; and dental care.

AMERICAN NOTES

First Aid Week.—May 23–29 is being observed in both the United States and Canada as First Aid Week.

Soap on Quota.—Soap makers in the United States have put dealers on a quota basis, ranging from 85 per cent. to 90 per cent. of last year's purchases. Manufacturers are limited, by War Production Board order, to 84 per cent. of the materials used in the average of the calendar years 1940–41.

More Vitamin C for U.S. Troops in Britain.—Following food tests at the United States Army's subsistence laboratory in England, American troops in the European theatre of operations are to have a ration that includes more milk, evaporated and powdered, than at present, to increase the amount of calcium, and more citrus fruit juices to increase the vitamin C content.

Toilets Separated from Drugs.—A change has been made in the organisation of the War Production Board of the United States by which drugs and pharmaceutical chemicals have been transferred to the Health Branch of a new Drug and Cosmetics Section of the Chemicals Branch. The Toiletries and Cosmetic Branch has been abolished, and items formerly handled by it are now dealt with by the new Section. The Health Branch now exercises control only over surgical dressings, hospital supplies and other medical supplies of a non-chemical character.

Ordered to Modify Advertising.—The R. L. Watkins Co., New York, manufacturers of Dr. Lyon's tooth powder, have been ordered to cease including in their advertisements such statements as "Do as your dentist does—use powder" and "No matter what you have heard about 'this' or 'that' dentifrice, the fact remains that your dentist knows more about cleaning and beautifying teeth than any one else. And he almost invariably uses powder." The Federal Trade Commission finds that while the practice is by no means universal, probably the majority of dentists do use powder in cleaning their patients' teeth. The powder used, however, is almost invariably pumice or silex, both of which are highly abrasive and could not safely be used by the public as a dentifrice. The active ingredient of the respondent's powder is calcium carbonate, which dentists use only in isolated and exceptional instances. The Commission finds that the product is

without therapeutic properties and is incapable of correcting any acid condition in the mouth. Representations that the product is "Free from all . . . grit" are found to be exaggerated, as the powder occasionally contains particles of grit which have not been removed from the calcium carbonate in processing.

American Pharmaceutical Association.—At its Denver meeting in 1942 the Association elected James E. Hancock, Baltimore, president for the year. "If the Pharmacy Corps is established in the regular army," Dean Kendig said, "its provisions are such that it can place pharmacy on the same plane as medicine, dentistry and veterinary medicine." Representatives of various governmental agencies participate in a symposium on problems of the current emergency. Dr. R. J. Bullock (Office of Price Administration) defended placing prescriptions under the General Maximum Price Order, but the convention rejected his explanation, passing a resolution expressing its unalterable opposition to the "ceiling" on professional services included in prescription prices and deploring the action of the Department in releasing statements relating to the public's view of prescription prices, which "are not supported by objective data and represent mere opinion." M. J. Ulan (Board of Economic Warfare) cautioned that, although the Board is attempting to develop new sources of supply of quinine in Central and South America, in all probability such supplies will do no more than satisfy military requirements. Dr. John M. McDonnell (Chief of the Health Supplies Section, Statistics Division, War Production Board) outlined the work of various governmental agencies. In an address before the House of Delegates the retiring president (Dr. V. B. Christensen) stated that over 50 per cent. of registered pharmacists in the United States had been enrolled under the first two Selective Service registrations. He declared that there must be careful selection of those who were to remain in civilian service. "Possibly the basic problem is how far all medical services, including pharmacy, will be further socialised as the result of the war and its aftermath," said Dr. Christensen. "The pharmaceutical and medical societies of Great Britain are already giving close attention to the part which each of these professions will take in the post-war health programmes."

TOPICAL REFLECTIONS

Theory and Practice

When Sir Thomas More, early in the sixteenth century, wrote his "Utopia," he is under no illusion as to the fictional nature of his paradise. Some illusion as to the boundary between fiction and fact, or more exactly between theory and practice, appears to be troubling the Southampton branch of the Pharmaceutical Society; on p. 400 you report its desire that present pharmacies be retained as such under Government control." In "Forty Years On," a book of reminiscences by the late Bishop Welldon published not long before his death, the view is expressed that this country will have to surrender some of its liberty and submit to further control. That view, coming from a former headmaster of Harrow, is entitled to respect; but it is pertinent to inquire what is to be the nature of the proposed control. Have our Southampton friends duly considered this aspect? If control is to mean domination, without appeal, by the card-index hands of Whitehall, the ancient precept *principiis obsta*—resist beginnings—is applicable. The Southampton "point" is amissible as a theory to be debated by a competent circle: if, however, it is intended as a complete statement of policy, it by implication forestalls the reasoned discussion which should guide members of the Society and their executive bodies to a sound decision. Your report of the Manchester meeting mentioned in this section a fortnight ago may with advantage be read by those who are not acquainted with it ready.

Control and Laxity

What can happen under some systems of control is evident from a paragraph in your account of the April meeting of the Pharmaceutical Society's Council (p. 399). It there appears that N.H.I. medicines have been supplied by a friendly society, and that the Ministry of Health, in reply to a communication on the subject, stated that the vacancy had now been filled by a pharmacist and mentioned the difficulty of obtaining pharmacists as the reason for the Ministry having been prepared to consider the appointment of an unqualified dispenser." We are not told how many unfortunate citizens have been fobbed off with dispensing done outside the provisions of the National Health Insurance Acts and regulations, nor whether any accident has

brought the irregularity to light. In any case it is admitted that the Ministry was, in the euphemistic phrase adopted, "prepared to consider" the event. The Council of the Society has rightly sanctioned a remonstrance. Where does this kind of departure from principle and order lead? In the final resort, to open conflict. It is a striking fact that on the domestic side of eighteenth-century government, Walpole, for all his power and shrewdness, sometimes gave way to popular demonstrations. Though no two cases may be exactly alike, similar disturbances can arise in our own day, when a better-educated public can better estimate the bearings of government action. Before leaving the subject of control, it may be suggested that the time is not ripe for the control of proprietary (not "patent") medicines by a committee of the British Medical Association and the Pharmaceutical Society: that matter was reviewed by the Councils of these bodies not long ago. Incidentally, if these medicines are really a public menace, how is it the country's death rates remain so low?

Health Publicity

Mr. J. Milner, who writes on Government pamphlets dealing with health (p. 414), has had a long experience of retail conditions and has the good of pharmacy at heart. But I cannot follow him in his desire that chemists in business should act as free distributing agents for official publications, however excellent the contents. If the Government wishes to "link up the chemist with the advertising," the Government can make an approach in some recognised way. While retail chemists are, as at present, either seriously overworked or likely to be, each additional obligation undertaken imposes a further strain. There is no reason why chemists should not mention to their customers the posters referred to by your correspondent—and even the booklet if they have read it. Let us, however, be on our guard against cheapening the qualification by indiscriminate running of other people's errands. It may be added that some of the efforts of Government advertising experts disclose a conception of the average public mentality that would be amusing if it was not irritating. Do we need, amid the stress of a great war, ludicrous pictures of imaginary persons and of lower forms of life such as are being used by some Departments today?

Xrayser

LEGAL REPORTS

Failed to Keep Register.—Stated to have been an eminent medical specialist in Hungary, Dr. Alexander Forbath, Abbey Gardens, London, N.W.8, was at the Marylebone Police Court recently fined a total of £24, on summonses under the Dangerous Drugs Regulations, for failing to keep a proper register of dangerous drugs he obtained, and failing to enter in a register quantities of morphine sulphate and morphine and atropine obtained from a firm of chemists.

Application for Injunction.—Coty (England), Ltd., Stratford Place, London, W., brought an action in the Chancery Division on April 14, in which they complained that shortly before Christmas 1941, Stephen Talbot & Co., Ltd., chemists, Uxbridge Road, Shepherds Bush, W., sold a Coty perfume bottle labelled "L'Aimant," but containing a perfume not of the plaintiffs' manufacture. They claimed an injunction to restrain the defendants from infringing their trade mark and from selling under the name of Coty any perfume not of the plaintiffs' manufacture. The defendants admitted the one sale complained of and pleaded that they genuinely believed that this bottle which they bought from a lady contained a perfume manufactured by the plaintiffs. They had already given an undertaking not to repeat the act complained of and submitted that under these circumstances the proceedings were harsh and oppressive. Mr. Lloyd Jacob, for the plaintiffs, said that that being the defence, the only question for the Court was that of costs. Producing the bottle referred to in the case, counsel said it was usually sold at 4s. 9d. A few days before Christmas 1941 a soldier entered the defendants' shop and asked for a bottle of Coty perfume for his fiancée. He was told that they had only one and was given the one in question, for which he was charged 7s. The lady, believing that her fiancée had been imposed upon, sent the bottle to the plaintiffs, who then informed her that it had been "contaminated with some foreign mixture," and ought not to have been sold under the name of Coty. When a representative of the plaintiffs called at the defendants' shop he was told that they had filled old bottles with their own perfume, and had forgotten to remove the Coty label from this particular bottle.

Mr. Arthur Stephens, a director of the defendant company, said he bought this

particular bottle and one other from a lady who came to the shop. He understood that the bottles came from a bombed-out store in Bond Street and all along he believed that they were genuine. The infringement was not a deliberate act, and he was willing to give any undertaking that was required. Cross-examined, Mr. Stephens said that the National Pharmaceutical Union was defending the case on his behalf. He had told the Union that he had put his own perfume into bottles brought to him by customers but he had never sold a Coty bottle with his own scent in it.

Mr. Justice Bennett, giving judgment, said that when the plaintiffs asked the defendants for an explanation of the sale the National Pharmaceutical Union replied repudiating on the defendants' behalf the suggestion that there was any infringement or passing off. It was clear that the defendants had infringed the plaintiffs' trade mark, but at no time before the issue of the writ did they offer an undertaking not to repeat the offence or to pay the plaintiffs' costs. Therefore it did not lie with the defendants to complain that the proceedings were harsh and oppressive. Defendant now offered a perpetual undertaking not to repeat the infringement, and Mr. Justice Bennett said that that being so he would simply order the defendants to pay the plaintiffs' costs.

Failed to Furnish Returns.—At the North London Police Court, on April 14, Laurence Randall, wholesale chemist, Cambridge Court, Edgware Road, Paddington, was ordered to pay fines and costs amounting to £381 5s. for failing to furnish returns of the amount of purchase tax for which he was accountable in respect of three periods in 1941 and 1942, failing to produce to the officer of Customs and Excise books, account and other documents and failing to give notice of his change of business address. The alternative was six months imprisonment.

UNDER a Conservation Order, which became effective in the United States on February 1, no person may deliver, accept delivery of, or use, any metallic bismuth without specific authority from the War Production Board. There are certain exceptions including deliveries to other producers and to persons whose total receipt during one month amounts to less than 50 lb.

TRADE NOTES

Powders in Bulk.—The Excel Product Co., 52 Whitefield Road, Luton, to chemists and shampoo manufacturers. Sulfalore compound soap powder Sulfalore sulphonated lauryl alcohol, etc. which are given on another page.

Lacquer and Concentrated Shampoo.—Firms for supplying nail lacquer in a range of shades as well as clear and naturelle, etc. with brushes, and Too-sec liquid concentrate, for use as a shampoo, are mentioned on another page by Maquillage Ltd., 50 Pall Mall, London, S.W.1.

Exempted from Purchase Tax.—The Commissioners of Customs and Excise have made a decision exempting Phillips' tonic in both tablet and granule forms, from purchase tax. To allow chemists to clear off existing stocks the new retail price will not be mentioned in advertising until public before May 24.

Mer's Malted Soyacream.—Details of this tonic food, ready sweetened, are given in the advertising pages of this issue. It is packed in half-pound and one-pound tins and in 7-lb. and 14-lb. tins for canteens, etc. Orders should be sent to Splendor, Ltd., Beastmarket Nottingham.

Warning for Food Production.—A warning given on another page by the Association of British Insecticide Manufacturers draws attention to the shortage of *Derris carpus* and nicotine insecticides, and that these materials should be used for the protection of foodstuffs, and in flower.

Business Closing.—Bayer Products, Ltd., 100, Abchurch Lane, London, W.C.2, announce that their offices and warehouse will be closed from 12.30 p.m. on April 24 to 8.30 a.m. on April 27. Supplies may be obtained from John Bell & Croyden, 50, Abchurch Lane, London, W.C.1, or R. Woolby & Co., 38 Gloucester Road, South Kensington, S.W.—Pharmaceutical Specialities (Baker), Ltd., Dagenham, will close their offices and warehouses from the usual hours on Friday, April 23, until 8.30 a.m. on Saturday, April 27.

Business Changes

F. Sherley & Co., Ltd., have removed from 9-70 Gordon Mansions, Torrington Road, London, W.C.1. Telephone: Museum 1234.

COMPANY NEWS

MAYPAC, LTD. (P.C.).—Registered in Dublin. Capital £10,000. Manufacturers, importers and distributors of and dealers in pharmaceutical, medicinal and chemical goods, etc. Directors not named.

D. J. H. W., LTD. (P.C.).—Capital £300,000. To acquire the business of W. J. Rendell, Ltd., and to carry on business as manufacturers of and dealers in chemists' supplies, toilet requisites, etc. First directors to be appointed. Solicitors: Linklaters & Paines, 97 Cannon Street, E.C.4.

A. J. HALL, LTD. (P.C.).—Capital £2,000. To carry on business as chemists, druggists, drysalts, etc. Miss Marjorie R. Hall and Mrs. Phyllis M. Blackburn, M.P.S., directors. Solicitors: Stolland & Limbrey, Midland Bank Chambers, Twickenham. R.O.: 97 High Street, Maidenhead, Berks.

INSPECTION LABORATORIES, LTD. (P.C.).—Capital £2,000. To carry on business as inspectors, reconditioners, suppliers and manufacturers of engineering products, tools and instruments, etc. Colin J. Jefferies and Harold H. Morris, directors. R.O.: 6 Broad Street Place, London, E.C.2.

BOTANICAL DRUGS, LTD. (P.C.).—Capital £1,000. To carry on business as growers of medicinal plants, manufacturers of and dealers in chemical and other preparations, etc. Ronald R. Walker, Lionel H. Green, Ronald L. Walker and Dennis Dalrymple, directors. Solicitors: Vaughan & Davies, Kington, Hereford.

EDWARD TAYLOR (IRELAND), LTD. (P.C.).—Registered in Dublin. Capital £12,000. Manufacturers of and dealers in surgical dressings, surgical and medical plasters, ligatures and surgical and medical goods of all kinds. Sylvester O'Farrell, David D. MacDonald, Mrs. Ellen O'Farrell, F. G. Haworth and Walter Greenhalgh, directors.

DIVIDEND.—Thomas William Moss, M.P.S., 20 Brook Street, Williamstown, Glamorganshire: First and final dividend 2s. 3½d. in the £, payable at 34 Park Place, Cardiff, on April 23.

"Only a Scrap of Paper."—Even the abandoned treaty immortalised in the famous words of the German ex-Kaiser Wilhelm II in 1914 would be useful as salvage today. The war effort demands every scrap of waste paper. What happens to yours? See that it is collected by the proper authority.

BIRKENHEAD'S "BRAINS TRUST"

BIRKENHEAD and Wirral Pharmacists' Association held a "Brains Trust" session at Birkenhead on April 13. There were seventeen questions and a number of supplementaries to which the replies were given by a "trust" consisting of Mr. J. Butler; Councillor W. J. Tristram, J.P.; Messrs. J. L. Hirst and W. H. Miner. Mr. F. Haworth was question-master. Among the questions and answers were the following:—

Is pharmacy going to do some planning to fit itself for the new Order and to play a worthy part in the new scheme, or shall we continue our policy of apathy and be forced once more to accept reluctantly a scheme prepared for us by others and unworthy of our profession?

MR. W. J. TRISTRAM: We must prepare a plan for pharmacy and give a lead. If we fail to take the initiative we might wait so long that a scheme will be presented to us and we shall be placed in a similar position to that in which we found ourselves in regard to the Pharmacy and Medicines Act. We expect our leaders to act quickly.

MR. J. L. HIRST: I believe the question is receiving careful attention at Bloomsbury Square and at Queen's Square. Our leaders should know precisely what they want—that the manufacture, dispensing and sale of drugs should be confined to those who have been trained and are qualified for the purpose.

Should the study of first aid and home nursing be added to the syllabus of the qualifying examinations of the Pharmaceutical Society?

MR. J. BUTLER: In my opinion, no; but they might be a useful addition to a post-graduate course. If anything should be added it is anatomy, which would not take up much more time than physiology does at present.

MR. W. J. TRISTRAM: I disagree. Doctors expect us to know far more about these subjects than we do.

MR. J. L. HIRST: Already the syllabus is overburdened. It would be a wonderful thing if a post-graduate course was instituted to include, in addition to the subjects mentioned, hygiene and sanitation.

MR. W. H. MINER: If you add these subjects what will there be left for a man to study after he has qualified?

Should there be legislation so that pharmacists would be limited to one place of business, i.e. to freeze company expansion and "little-man" local chains?

MR. W. J. TRISTRAM: The day has gone when we can stop company expansion in pharmacy. Company chemists have taken us a great deal on matters of management and efficiency. The man with a business, a good stand, and who runs his business in an efficient and energetic manner, nothing to fear from the company. A private chemist must give credit to the company for what it has done.

MR. J. L. HIRST: There must be a field and open competition. The public would be against any form of monopoly. The title "chemist and druggist" ought to have been preserved and protected for a man who was legitimately a chemist and druggist. Failure of pharmacy's leadership in the past is partly responsible for the mess which we can see today.

MR. F. HAWORTH: Although a company man, I should hate to see monopoly. I prefer to see open competition.

Should membership of the Chemists' Friends movement by retailers be open only to those practising pharmacy and not at present, where stores, etc., do not practise pharmacy (i.e. do not dispense medicines) but employ a pharmacist and hence enjoy the privileges of the C.F. scheme?

MR. W. J. TRISTRAM: The C.F. movement is one of the finest things which has come out of pharmacy in recent years. Its enormous potentialities and the success it is in our hands. If we give the movement our full support, we can then make other approaches to the manufacturers.

MR. J. L. HIRST: I regard the C.F. movement as just one prong and not the whole fork. It is a praiseworthy attempt to retain for pharmacy a portion of the business it has pioneered. The C.F. should not be the be-all and end-all. Leaders of the movement should be supported and stiffened so that they can fight better the principles we have at heart.

At what hour should pharmacies close? Should there be a rota of shops open and if so, to what time?

MR. W. H. MINER: In the town at present business is finished at 6 p.m., but one shop should be open on rota until 8 p.m.

MR. W. J. TRISTRAM: The place of business should close at 6 p.m. As a profession, the profession of pharmacy, service must be available at all hours of day and night, not for shop trade, but professional service.

What are the practical advantages

employee draws from membership of the Pharmaceutical Society?

R. J. L. HIRST: Recognition of status, up-to-date advice through the Society's staff; eligibility to fill offices of the Society; the Benevolent Fund; the right of entry for Pharmaceutical Society students; and the service of a comprehensive pharmacy.

R. W. J. TRISTRAM: Status is important. It gives the employee, as well as the employer, confidence.

Should apprenticeship commence after qualification, and would this raise the status of pharmacy into the professional class?

R. J. BUTLER: I do not think apprenticeship should start after qualification. A person who has had counter experience at an early age is more adaptable and more successful than one who has had dispensing experience only. I am doubtful if a person of twenty-one or twenty-two, armed with a qualification, would take kindly to counter work. In my opinion, the ideal would be to have the intermediate examination, followed by apprenticeship, followed by the final examination.

What are the views of the brains trust on organisation of managers and assistants? (a) the National Pharmaceutical Union, (b) the Association of Pharmaceutical Chemists, (c) legislation to amend the law so that it will really match the needs of the craft as a whole?

R. W. J. TRISTRAM: Managers and assistants ought to have an organisation if they have one. I am against legislation to amend the Charter, because I fear our organisation would lose the protection of the public would suffer thereby. I favour an independent organisation for employees, like the N.P.U.

R. J. L. HIRST: There has been a total lack of atmosphere on this subject. I regard the N.P.U. move as magnificent; when the N.E. called a meeting, there was a very poor attendance. As for the Society neglecting sectional interests, it could not be helped.

What remedy is suggested for doctors who do not use the National War Formulary? What method should be adopted with prescriptions for things of which stocks are limited?

Speakers stated that some doctors were prescribing bismuth and quinine, but the onus of responsibility fell on the pharmacist to use the specified substitutes. It was said he had good grounds for believing that a prescription including quinine was needed for a malarial patient.

What should be the procedure regarding the sale of twopennyworths of pot. permang., pot. nit., etc., under the new explosives order?

Mr. J. L. HIRST: I have received a new order requiring that all sales, in whatever quantities, to unknown customers, shall be reported to H.M. Inspector of Explosives.

Now that patent medicine formulas are published, what is our reaction when we find we are quietly sponsoring the sale of 2 oz. mag. carb. levis. for 5s.?

Mr. W. J. TRISTRAM: My reaction is to let the customer know what he is buying. I do not think anything can be done about it nationally.

Mr. J. L. HIRST: My feeling is of nausea. There should not be the protection of trade marks for commonplace things. The sellers said they did not claim any right to the formula, only to the title.

What should be the hours of labour for chemists after hostilities cease?

Mr. W. J. TRISTRAM: The chemist as a business man should have an eight-hour day. As a professional man his services should always be on call. There should always be a rota chemist open all night.

Mr. J. L. HIRST: No more hours should be worked than are commensurate with fulfilling our duty to the public and earning a livelihood, with due regard to our professional responsibilities.

What should be charged as a dispensing fee when a customer asks for threepennyworth of Epsom and threepennyworth of Glauber salts mixed, etc.

Mr. J. L. HIRST: Is it dispensing just to put the two together? If you literally mix them with pestle and mortar that is a different matter and a dispensing fee is justifiable.

Mr. W. J. TRISTRAM: You can't get a plumber to put a washer on your tap for the price of the washer. If you mix the two ingredients I think threepence is a reasonable charge.

Mr. F. HAWORTH: In the shops there is no sort of rule about this. There ought to be. I think we should charge half the usual dispensing fee. I hope the N.P.U. will consider the point.

What is the opinion regarding State dispensaries?

Mr. J. L. HIRST: The service now being given by pharmacists must be taken into consideration before establishing State dispensaries. I think the N.H.I. service will be greatly elaborated and that prescriptions will be dispensed for the whole of the community. Our business as dispensers will

be at the disposal of the whole of the public.

MR. W. J. TRISTRAM: We have won a place for ourselves as proprietors of shops and as pharmacists. In future the authorities might say our place is in the State dispensaries or that our pharmacies must be attached to health centres. We should contact the authorities to find out what they have in mind. If we have to have a place in State dispensaries, we must see the pharmacist's place is secured, and that the remuneration is adequate. We have to face the position of being regarded as professional men or mere shopkeepers for the sale of

ancillary articles. Our birthright is that pharmacists shall do the dispensing.

Can a lead be provided to the question of sale of "female" pills, cochia pills, etc.

MR. W. J. TRISTRAM: I suggest there is no harm in selling these pills for ordinary female irregularities, but they should not knowingly sold to pregnant women.

MR. W. H. MINER: The title "female pills" should be dropped. Sell them as cochia pills or pennyroyal pills, but not as "female pills."

MR. J. L. HIRST: If these pills were advertised, the sale of them, to a tremendous extent, would be stopped.

NEW MEANING OF "C.F."

At a well-attended meeting of chemists in Plymouth, recently, Mr. R. H. Kemp (secretary, Chemists' Friends Association) gave a forceful address on "The new C.F. Conditions Explained." If chemists wished to improve their lot they must work and act on a voluntary basis, he said. The weapon was the one inaugurated in Plymouth—the Chemists' Friends movement. The speaker then dealt with the new conditions and decisions of the C.F. movement. Over 65 per cent. of members, he said, had voluntarily agreed to support the C.F. scheme and accept the penalty conditions. Today, a non-C.F. retailer could not have the benefits of both worlds—ignore the scheme and still have its benefits. Manufacturers and retailers could now work in collaboration. For the application of the new conditions, the C.F. had gained experience from the workings of the Proprietary Articles' Trade Association. First the offender would get a polite letter reminding him of the conditions. Then, if a reasonable period produced no improvement, he would receive a stronger letter. No response to this would find the chemist faced with a legal agreement to sign, agreeing to pay a monetary penalty for each and every future offence. Failure to sign would mean being put on the "stop list," with supplies of all C.F. manufactures cut off. Mr. Kemp then referred to possible changes in the name of the Association. One large manufacturer had pointed out that the present name implied that manufacturers whose articles are not eligible to come on the C.F. list were unfriendly to chemists; this was one reason, but the main one was an eye to future development. After the war the propaganda committee visualised the possibility of inaugurating a

combined publicity campaign. The title "Chemists' Friend" was not the best for publicity purposes, hence the suggestion to change the name to "The C.F. Product Association." In future the letters C.F. would take on a new meaning: "Chemist's Formula."

MR. EUSTACE inquired if a small comparative display of non-C.F. lines constituted "bonus display." Mr. Kemp stated it depended on manufacturers, but the correct thing for the retailer was to work to conditions which conformed to C.F. conditions had been given. MR. DOWN asked for a definition of "own lines." The reply was "Any articles of proprietary character which are manufactured by, for, or on behalf of a chemist for pharmaceutical purposes." MR. WALLIS inquired if the new agreement could be legally enforced. MR. KEMP stated that the agreement which chemists would be required to sign if they were found not to be adhering to the new conditions would be one that could be enforced. MR. BURROW asked what was the attitude of the combines, and was informed that no direct opposition had been expressed; the new conditions would be operative on private, multiple, and cooperative chemists alike. MR. YEATES stated that there was no other way for pharmacists to establish their right as suppliers of medicines than the C.F. movement, and that he had failed to find any pharmacist who had suffered financially by being C.F. MR. KEMP gave it as his experience that C.F. supporters had found a 2-3 per cent. increase in gross profits. MR. HARVEY then proposed the following motion: "That the C.F. movement should be supported by practising pharmacists." This was carried unanimously.

PERSONALITIES

MR. JOHN P. CURTIS, M.P.S., formerly pharmacist at Brentwood Mental Hospital and North Ormesby Hospital, Middlesbrough, is shortly leaving this country for Baghdad, Persia, to take up an appointment with the Anglo-Iranian Oil Co., Ltd.

MR. JOHN LOCKERBIE, M.P.S., Dumfries, has been awarded by King Haakon of Norway the Knighthood of Saint Olaf (1st Class) for his services to the Norwegian forces who came to Dumfries after the invasion. At that time Mr. Lockerbie was chief magistrate of the Burgh and did much for the comfort and contentment of the exiles. He was later one of the founders of the Scottish-Norwegian Society and holds the office of vice-president.

PROFESSOR ALEXANDER FINDLAY was honoured by students and friends at the University of Aberdeen recently, on the occasion of his retirement from the Chair of Chemistry to take up the duties of President of the Institute of Chemistry. Mr. J. A. Lovern, who presided, said no more suitable holder of this office could have been found than Professor Findlay. Professor Findlay, in reply, said there seemed a reluctance on the part of Associates to apply for Fellowships, and no doubt the financial aspect was one reason, and the stringency of the regulations another. He urged Associates to go forward.

MARRIAGES

MARSHALL—LEACH. — At St. James's Church, Sussex Gardens, London, W.2, on April 3, Kenneth Marshall, M.A. Cantab., only son of Mr. Henry H. Marshall, M.P.S., Loseley, Birmingham, and Mrs. Marshall, of Cynthia Leach, formerly of New Park, Exminster.

DEATHS

CLARK.—On active service, recently, Sergeant-Observer William Arthur Clark, M.P.S. Mr. Clark, whose registered address was 20 Grove Lane, Headingley, Leeds, 6, qualified in 1938.

FARREN.—At Ballybofey, co. Donegal, on April 7, Mr. John Joseph Bernard Farren, M.P.S.I. Mr. Farren, who qualified in 1933, had been in business in Buncrana for several years.

LOWTHER.—Recently, Mr. Thomas William Lowther, chemist and druggist, Loseley, Birmingham, aged eighty-four.

SIMPSON.—At Bath, on April 14, Mr. Richard Simpson, aged sixty-three. For the past thirty-seven years Mr. Simpson had been with Hodders, Ltd., chemists, at their Southgate Street branch.

STEELE.—Recently, Mr. William Henry Radmore Steele, M.P.S., 273 Fulham Road, London, S.W.10, aged sixty-six.

WARNER.—Recently, Mr. Vivian Stuart Warner, M.P.S., Berkeley, Glos, aged forty-five.

WEBB.—On April 16, Mr. William Robert Webb, a director of Kodak, Ltd., London, aged fifty-five. He joined Eastman Kodak Co., Rochester, New York State, and specialised in organic chemistry. When the Kodak organisation started manufacturing its products in Germany he was first works manager of the plant at Kopenick, near Berlin. Afterwards he controlled the Kodak works at Harrow, Middlesex. A few years ago Mr. Webb relinquished control of the Harrow works to become assistant general European manager.

WOOD.—On April 19, Mr. Frankland Victor Wood, M.P.S., F.S.M.C., F.B.O.A., 3 Albert Square, Clapham, London, S.W.8, aged fifty-three.

RECENT WILLS

MR. THOMAS THWAITES TOWNLEY, M.P.S., Craigower, Manor Brow, Keswick, Cumberland, who died on October 30, 1942, left £8,129 gross, with net personality £3,490.

MR. GEORGE DAVID KIRKNESS, M.P.S., 8 Fore Street, Ridgeway, Plympton, Devon, who died on October 8, 1942, left £1,402 gross, with net personality £1,055.

MR. PERCIVAL GEORGE FREDERICK BRIDER, M.P.S., 101 Bellevue Road, Southbourne, Bournemouth, Hants, formerly of Brondesbury, London, N.W., who died on May 10, 1942, left £1,889, with net personality £243.

MR. DANIEL THOMAS EVANS, M.P.S., J.P., Westbrook Avenue, Margate, Kent, managing director, D. T. Evans, Ltd., and a former Mayor of Margate, who died on December 26, 1942, left £21,527, with net personality £9,370.

MR. JOSEPH EDWARD FISHER, Springfield Terrace, Holmfirth, Yorks, stated to have been formerly in business as a chemist in Victoria Square, Holmfirth, who died on November 21, 1942, left £1,055 gross, with net personality £964.



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Official organ of The Pharmaceutical Society of England, The Pharmaceutical Society of Northern Ireland, The Chemists' and Druggists' Society of Scotland and of other Chemists' Societies in the Empire

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The fact that goods made of raw materials in short supply owing to war conditions are advertised in this paper or described in its editorial columns should not be taken as an indication that they are necessarily available for export.

The "Brighton" Plan for Pharmacy

The first report of discussions by a group of pharmacists known as the Brighton Committee has recently been issued. This Committee was formed at a meeting of pharmacists at Brighton in July 1942 and comprises members of various sections of pharmacy and from widely different districts of England. Among the purposes which the Committee was formed were to discuss matters of pharmaceutical interest, to increase the interest of members in the Pharmaceutical Society in the general work of pharmacy, and to maintain and advance the status of the Society for the benefit of its members. We understand that the Committee has been holding meetings at monthly intervals since its formation, and among the matters that have been discussed are the Draft Interim Report of the Medical Planning Commission, the Memorandum submitted by the Pharmaceutical Society and the National Pharmaceutical Union to the Beveridge Committee, and the Beveridge Report itself. As the result of its deliberations the Committee is of opinion that a plan of association which makes use of the existing phar-

maceutical organisation forms the best means of achieving the desired progress. A survey of the existing conditions of pharmacy has indicated that the majority of establishments, including pharmacies, hospitals and clinics, where medicaments are prepared, have insufficient staff and equipment to give to the public the maximum services which modern medical science demands. The more important causes of this unsatisfactory condition may be summarised as follows:—

- (1) The mass production of medical remedies and the associated medical propaganda leading to the prescribing of proprietary medicines which frequently have no relation to the requirements of the individual patient.
- (2) The failure to appreciate the importance of separating dispensing from prescribing.
- (3) The economic difficulties occasioned by the restriction of their professional sphere, by which many pharmacists have been compelled to extend their trading activities.
- (4) The lack of recognition of pharmacy as an integral part of medical science which has compelled pharmacy to function as a separate entity.

Whilst this Committee is firmly of opinion that pharmacy can only reach its highest efficiency in a comprehensive national medical service, it is convinced that there is much in the present system well worthy of preservation. Nevertheless the introduction of any comprehensive health service will necessitate changes in the practice of pharmacy and the committee is of opinion that pharmacy should be represented at the initiation of all important changes and not left to accept changes or attempt to influence them from the outside. The Committee considers, therefore, that there should be a pharmaceutical Section of the Ministry of Health directly responsible to the Minister, and a similar body in the Department of Health for Scotland.

The Practice of Pharmacy

The Committee visualises that pharmacy will be practised by pharmacists in: (1) hospitals; (2) health centres; (3) registered establishments (pharmacies); and (4) wholesale and manufacturing establishments. It is unlikely that the country will

adopt directly a fully nationalised medical service, and such a development would be transitional over a number of years. The problem is to find a way in which registered establishments can fit into a public medical service.

Suggested New Bodies

To implement such changes as experience will show to be necessary the Committee urges that the following new bodies be set up forthwith. These should have statutory authority and well-defined executive powers, but a beginning might be made as a voluntary organisation with advisory function only.

- (1) Local councils of medical services upon which pharmacy shall be adequately represented by representatives nominated by the local Branches of the Pharmaceutical Society.
- (2) Regional councils of medical services with pharmaceutical representatives consisting of persons nominated by regional federations of local Branches of the Pharmaceutical Society.
- (3) A national council of medical services consisting of persons nominated by the Ministry of Health, the Department of Health for Scotland, the representative bodies of medicine, the Pharmaceutical Society, and other allied bodies.

The Committee has purposely presented this plan in outline only. As such, the Committee believes the plan could most usefully be used as an objective towards which pharmaceutical policy could be directed. Discussions on details will be rendered the easier if the outline of the objective can first be agreed upon and then always kept in view.

Pharmaceutical Society of Northern Ireland

SOME confusion appears to have arisen as to the procedure to be followed by members of the Council of the Pharmaceutical Society of Northern Ireland on the approaching expiry of the period for which they were elected. In the minds of some members of the Society the erroneous impression seems to exist that it is the duty of the Council or its secretary to notify or to remind councillors when they fall due for re-election, whereas the onus of giving notice of intention to seek re-election is on the members themselves. This is con-

firmed by a letter we have received from Messrs. Hamill, Davison & Wilson, solicitors, on behalf of the Pharmaceutical Society of Northern Ireland, of which the following is an extract:—

"At the monthly meeting of the Council of the Pharmaceutical Society held on 19th March this matter was brought up and it was made quite clear that there was no obligation on the Council to advise members when their term of office was drawing to a close, but that under the Society's Regulations it was the duty of the member to advise the Council if he wished to seek re-election at the Annual Meeting and this had not been done by Mr. Martin. In the connexion we would refer you to Regulation 45, which you will find in the Calendar of the Society. Apart altogether, however, from the strict legal position on page 3 of the Register for 1942 published by the Pharmaceutical Society of Northern Ireland there is a clear statement indicating the names of the members of the Council who retire in the year 1942, and on this list are two Druggists' representative one of them being Mr. W. Martin, who, together with every other member of the Council received a copy of this Register. He had therefore, ample notice that he was due to retire."

The correct position is stated in our report of the March meeting of the Council of the Pharmaceutical Society of Northern Ireland (see *C. & D.*, March 27, 1943, p. 330).

COMING EVENTS

Notices for inclusion under this heading should be sent in time to reach the Editor in Bath not later than Wednesday morning of the week of insertion. Secretaries are advised to send copies of printed programmes of local activities so soon as they are completed.

Wednesday, April 28

LIVERPOOL CHEMISTS' ASSOCIATION, Royal Institution, Colquitt Street, at 7.30 p.m. Annual meeting.

LIVERPOOL BRANCH OF THE PHARMACEUTICAL SOCIETY, Royal Institution Colquitt Street, at 8.15 p.m. Annual meeting.

LEEDS BRANCH OF THE PHARMACEUTICAL SOCIETY, Metropole Hotel, Leeds, at 3 p.m. Mr. J. T. Appleton (a member of the Council) on "General Matters of Pharmaceutical Interest."

Thursday, April 29

WEST HAM AND EASTERN DISTRICT ASSOCIATION OF PHARMACISTS, 43 West Ham Lane, London, E.15, at 3 p.m. Mr. Arthur Mortimer, O.B.E., on "Is There a Good Time Coming?"

FORMALDEHYDE-GELATIN IN ENTERIC PILLS AND CAPSULES

by W. Cooper, Ph.C.

comparative ease with which a preparation intended to dissolve in the intestine can be dispensed by using the formaldehyde-gelatin method and the very wide differences between the figures given by recent authorities for both the strength of the formaldehyde and the time of immersion, have prompted a re-examination of the subject. The variations range from concentrations of 1 per cent. to 40 per cent. formaldehyde and immersion periods from a few seconds to ten or fifteen minutes. The variations given in the following table are representative:—

prepared, or possibly on the day after, and remains so for, preferably, not less than a week.

Soft Capsules

In a preliminary experiment seventy-two 10-minim soft capsules were filled with strongly-coloured turpentine, sealed by fusion of the "neck" by means of a heated plaster iron, washed with chloroform to remove grease, and divided into two batches of thirty-six. The first batch was immersed in 2 per cent. formaldehyde solution (2 per cent. HCHO) for fifteen minutes. The second

		Strength	Time
Dale, 20th edition ..	for capsules, hard ..	10%	5 min.
	and soft ..	2%	15 min.
Dale, 20th edition ..		Strength and time of immersion are not mentioned, but attention is drawn to the fact that formalised gelatin capsules should be quite recently made. The hardening effect of formalising continues on keeping.	
Dale, 21st edition ..	for capsules ..	10%	5 min.
	for pills ..	2%	15 min.
Dale, 21st edition ..		The note concerning the increase in hardening on keeping is repeated.	
Dale, 22nd edition ..		Same as 21st edition	
Remington's "Practice of Pharmacy," 7th edition		1%	30 seconds
Remington's "Practice of Pharmacy," 7th edition		Two weeks are required for "maturing" (i.e. becoming insoluble in stomach and soluble in intestine). Said to keep for one year, but capsules treated with stronger solutions or for a longer time soon become insoluble.	
Cooper & Dyer's "Dispensing for Pharmaceutical Students," 4th-7th editions		40% formaldehyde	10 min.
N. Dale, "Pharmaceutical Journal," 11/1932		There is a recommendation that the usual <i>in vitro</i> test should be carried out on an extra capsule.	
4 ..		40% formaldehyde	10-15 min.

It was felt that the two weeks required for maturing when the 1 per cent. formaldehyde solution recommended by Remington is used make that process unsuitable for temporary dispensing, which demands a method in which the pill or capsule becomes fit for use on the day on which it is

was immersed in 40 per cent. formaldehyde solution for ten minutes. Each batch was washed quickly under the tap to remove excess of formaldehyde, and allowed to dry on an upturned sieve. The usual *in vitro* test was then applied. The solutions were: (1) Pepsin, 0.2 per cent.; hydrochloric

acid, 0.2 per cent. (2) Pancreatin, 5 per cent.; sodium bicarbonate, 0.5 per cent. Temperature, 35–37° C. Capsules which did not dissolve in the pepsin and acid were allowed to remain therein for three hours before washing and transferring to the alkaline solution. Seven capsules were used in each test, and the results were as given in the following table:—

harder on keeping the swelling was less less observable, and eventually split took place in the solution. Parallel to this, the sound emitted when the bottles were shaken changed gradually—the likely to split gave a hard, almost metallic sound, and capsules broken by splitting showed a granular appearance along fractured edges. Within limits it was found

Day of preparation	(a) Treated with 2% formaldehyde for 15 min.		(b) Treated with 40% formaldehyde for 10 min.	
	Pepsin and acid	Pancreatin and alkali	Pepsin and acid	Pancreatin and alkali
First ..	Commenced to dissolve in 15 min. Completely dissolved in 30 min.		Swelled but did not dissolve.	Digestion well advanced in 30 min. Complete in 3 hours.
Second ..	Swelled considerably. Insoluble.	Dissolved in one hour.	All split in 30 min. (4 in 10 min.)	
Fourth ..	Swelled a little but did not dissolve.	Not completely dissolved in 3 hours but dissolved overnight.	Three split in first hour.	Four did not solve in 18 hours.
Fifth ..	Swelled a little. One split.	One split. Remainder partly dissolved and contents liberated in 3 hours.	Four split in one hour.	Did not dissolve in 18 hours.
Sixth ..	Three split very quickly.	Four split in 30 min. but did not dissolve in 18 hours.	Two split immediately.	Not dissolved in 18 hours.

Time of Maturing

From these results it would appear that capsules treated with 2 per cent. formaldehyde for fifteen minutes require about twenty-four hours to "mature," that is to say they do not become properly enteric until the day after that on which they were prepared. On the other hand, capsules treated with 40 per cent. formaldehyde were correctly enteric on the day of preparation, somewhat doubtful on the day following and useless on the fourth day. It will be observed that even the first batch began to show signs of an unsatisfactory character on the fourth day and became decidedly unsatisfactory by the sixth day. There were, however, doubts concerning the efficiency of the test itself. Observation of capsules during the test showed that those which are properly enteric swell a good deal in the acid solution, but as they became

possible to alter the results at will shaking the bottles vigorously. The harder ones could be split either in the acid or the alkaline solutions. It was thought that this mechanical fracture or splitting would be unlikely to take place in the alimentary canal, because the triturating effect of gastric and intestinal movements is quite small. Spallanzani (1729–1799), not content with making experiments on animals, carried out a great many on himself. He swallowed foods of various kinds sewed in linen bags and enclosed in perforated wooden tubes which, in turn, were covered with linen. These were subsequently passed in the stools and were examined as to amount and nature of their contents. To prove that the triturating power of the stomach is not very great, he called attention to the fact that some of the tubes were made very thin, so that the slightest

would crush them, and yet they voided uninjured. So also he found cherries and grapes, when swallowed, even if entirely ripe, were usually unbroken. The need of a check test which the capsules are swallowed was thus and a modification of that suggested by Remington was adopted. In original test capsules filled with a

soft paraffin, six parts, proved satisfactory. It was forced into the capsules, which were then sealed (by fusion as before), tested by pressing the sealed ends firmly upon white paper, and then freed from greasy finger-marks by washing with chloroform. The need for testing is obvious and the washing with chloroform is equally important, since the aqueous formaldehyde

of per- n	40% Formaldehyde		2% Formaldehyde		
	10 min.	5 min.	15 min.	10 min.	5 min.
ay	Dissolved in intestine	Dissolved in stomach.	Not tested, as known to be readily soluble in stomach.		
ay	Passed through undissolved.	Voided whole but a little dye had been liberated.	Dissolved in intestine.	Dissolved in stomach.	Not tested.
ay	Liberated contents in stomach.	Not dissolved.	Dissolved in intestine.	Dissolved in intestine.	Dissolved in stomach.
ay	Not tested <i>in vitro</i> , test showed splitting in acid and pepsin in every case.		Dissolved in intestine.	Dissolved in intestine.	Dissolved in intestine.
ay	"		Slowly dissolved in intestine.	Dissolved in intestine.	Dissolved in intestine.
ay	"		Very slowly dissolved in intestine, colour appearing in about 10 hours.	Dissolved in intestine.	Dissolved in intestine.
ay	"		Undissolved.	Dissolved in intestine in 8 hours.	Dissolved in intestine.

ure of methylene blue and calcium chloride are recommended to be used but found to dissolve in the stomach in any case where solution took place at all. Experiments *in vitro* showed that this due to the small amount of solution gastric juice which enters the capsule during the test reacting with the sulphide liberating gas (H_2S) which inflated capsules to bursting point. No doubt strong solution inside the capsule aided the entry of more liquid from outside and aided this effect. Grease-filled capsules of the two ingredients also proved satisfactory, because the gas was liberated so slowly that its detection was difficult. A mixture of methylene blue, one part; peppermint oil, three parts; and

will not penetrate the grease. After treatment with formaldehyde a capsule is swallowed and followed at intervals by draughts of highly carbonated water. If the eructations thus provoked taste of peppermint the capsule is considered to have dissolved in the stomach. If, on the other hand, the urine is not coloured within twelve hours it is counted as totally insoluble. Confirmation of this has been obtained in several cases by the recovery of the capsule. In making use of this test parallel experiments with batches of not less than five capsules were carried out *in vitro* because the physiological test can only be applied to as many articles as there are individuals willing to carry it out. The results were as given in the table on this page.

Essentials for Consistent Results

The results tabulated on the preceding page are difficult to average, and those given in Table 2 are regarded as fairly representative because they were obtained more often than any others. On the other hand, on occasion a set of very irregular results would crop up, which could only be explained by assuming that capsules with walls of noticeably unequal thickness in different parts are unsafe, or that room temperature and rate of drying have more effect than is actually evident. Examination of Table 2 indicates that capsules treated with 40 per cent. formaldehyde for ten minutes can only be accepted with safety for about twenty-four hours after preparation, so that a single dose to be taken late on the day of preparation or early on the morning afterwards could be thus prepared. Immersion for five minutes did not offer any advantage. The use of 2 per cent. solution for fifteen minutes produces capsules which are completely satisfactory for the three days but the treatment could be continued with capsules immersed for five minutes only on the same day as the others. These appear to remain useful from the fourth to the ninth or tenth day after preparation.

Rate of Dissolution

Experience in carrying out these tests indicates that the oil of peppermint and the draughts of carbonated water may be omitted from routine experiments. If the

urine has not shown colour at the end of three hours the capsule may be considered not to have liberated its contents in the stomach and to have passed into the intestine. When coloration fails to appear at the end of eight hours the rate of dissolution has become so slow as to be unsafe, partly because it is liable to be voided whole, partly because if it does dissolve only the lower part of the intestine can be affected by the medicament. The *in vitro* test gives results parallel with those given by swallowing or physiological test if carried out in carrying it out. No shaking is necessary, gentle inversion of the bottle about every half-hour, in order to bring fresh solution into contact with the capsules, being all that is required. After expiration of three hours in the pepsin and acid solution it was found easier to displace and swirl out that solution with warm water and then replace it with alkaline solution, which was kept at right temperature. Capsules which swell moderately and become translucent in appearance in the pepsin solution almost always dissolve in the pancreatic one.

Hard Capsules

A large number of hard capsules (of 200) have been experimented with, using formaldehyde solutions of 2, 5, 10, and 40 per cent. Time of immersion varied from two to ten minutes. The best results were obtained by using 2 per cent. solution for five minutes.

Duration of treatment in minutes	Age in days	Satisfactory (i.e. correctly enteric) or not	(Average) Time taken to dissolve in pancreatic and alkali solution
5	2	Satisfactory	30 min.
6	2	"	35 "
7	2	"	40 "
8	2	"	40 "
5	5	Satisfactory	35 min.
6	5	"	40 "
7	5	"	40 "
8	5	"	45 "
5	7	Satisfactory	50 min.
6	7	"	50 "
7	7	"	50 "
8	7	"	55 "
5	14	Satisfactory	60 min.
6	14	66% satisfactory	90 "
7	14	50% "	90 "
8	14	50% "	90 "

to the thin walls, they became so on treatment with the solution they were difficult to handle in transferring to the sieve for drying; consequently were misshapen and inelegant in the end. It would seem better to resort to use of soft capsules in all cases.

Gelatin-coated Pills

Experiments were made with commercial gelatin-coated pills, using formaldehyde solutions of the same strengths as those used in the case of the hard capsules. Satisfactory results were not obtained. Weaker solutions penetrate the gelatin coating of the pill mass so that the pills could not be dried without sticking to the plate.

The stronger solutions give results which are excellent in appearance but which, with one exception, discharged their contents in the pepsin solution by the splitting of the gelatin coating. It appeared that a liquid passed by diffusion through the gelatin coating and caused swelling of the contents, with consequent rupture of the coating. There is little doubt that all pills would have undergone dissolution in the stomach. Pills made in the laboratory with methylene blue, kaolin, hard and soft capsules and coated with gelatin, using a special apparatus made on the premises, gave better results. A 20 per cent. solution of gelatin must be used, as formaldehyde containing acacia gum in addition is too much in the dilute formaldehyde solution. The stronger solutions (10-40 per cent.) give unsatisfactory results on exposure to about 70 per cent. of them yielding to the pepsin solution; all of those exposed dissolved within three hours, thereby indicating dissolution in the stomach. The 2 per cent. solution was used in about forty experiments, and in view of the thinness of the gelatin film it was thought that the shorter times of exposure would be sufficient. This proved to be the case. Periods of from one to four hours were, however, too short. Five or ten minutes' exposure gave a film which ruptured in two days and remained correctly intact for a week or ten days. Both tests gave identical results. After ten days, dissolution in the stomach or the pepsin solution occurred in a few cases, although most of the batches remained satisfactory for a longer period (until all had been used) in some cases as long as twenty days. Dissolution of pills coated with 20 per cent. gelatin and treated with 2 per cent. formaldehyde solution (six pills in each case) resulted as in table on preceding page.

Experience in carrying out the experiments detailed left the impression that the use of strong (40 per cent.) formaldehyde is the most convenient method. The articles, whether pills or capsules, are easier to handle during the process, and have a better finish as a rule. Efforts were therefore made to stop the progressive action of the chemical by various washing processes applied after the immersion in the 40 per cent. solution:—(a) one hour in running water; (b) short periods of immersion in weak hydrogen peroxide solution (1 volume) followed by washing in weak alkali to remove the formic acid; (c) soaking in alcohol of various strengths. None of these has given satisfactory results. The formaldehyde appears to be firmly held (adsorbed?). Gelatin capsules when filled or empty lose water on storing. In this condition they are difficult to seal and slow to take up the formaldehyde solution. They should be placed under a bell jar or other suitable vessel together with a beaker of water and should then be allowed to reach equilibrium with an atmosphere saturated with water vapour.

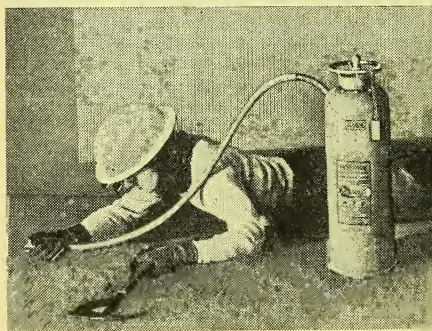
Conclusions

The warning concerning the progressive action of formaldehyde, given by Remington and Martindale, is justified. The process, though limited in scope by comparison with some of the claims made for it, can be arranged to provide reasonably accurate enteric treatment in the manner suggested (soft capsules to be taken on the first day prepared by using 40 per cent. formaldehyde for ten minutes, those for use on the next two or three days by immersion in 2 per cent. formaldehyde for fifteen minutes, the treatment being continued with samples prepared by using the 2 per cent. solution for five minutes, the latter being prepared three days in advance). Pills can be prepared in the same way, but the treatment on the first two days is more uncertain than where soft capsules are used. Attempts to stop the progressive action of the formaldehyde by washing out the excess have so far failed. The triturating power of the stomach and intestinal movements is shown to be small. Many of the capsules which failed to discharge their contents were much more delicate and more easily ruptured than Spallanzani's tubes or grape or cherry skins.

[From the School of Pharmacy, Merchant Venturers' Technical College, Bristol. The paper was read at a recent evening meeting of the Pharmaceutical Society.]

MACHINERY NOTES

Fire-extinguishing Cylinder.—A notable advance in the field of hand fire-extinguishers is the R.S.Q. standard machine of the Nuswift Engineering Co., Ltd., Elland, Yorks. It is in the form of a steel-plate cylinder. This stands upright. On striking a knob, the operator liberates a powerful pressure-jet from a nozzle. A flexible hose, 42 ft. long, is operated by the other hand. Only water and compressed carbon dioxide gas are used, the latter being in a seamless copper container fixed inside at the top. On striking the knob a sharp point perforates a small welded-copper seal at the top of the container, releasing the gas, which dissolves in the water, and releases a uniform smothering fluid. The jet can be directed without danger upon human beings, and has no injurious effect upon fabrics and equipment. The jet is, of course, intensely cold, and this increases its fire-extinguishing properties; it is a non-conductor of electricity, and safe up to 25,000 volts, while the nozzle tip cannot be stopped up by solids formed by evaporation. Almost every drop of water is discharged, whilst the jet can be stopped at any time, thus conserving the contents for extinguishing systematically and rapidly any small local smouldering portions after the main fire has been extinguished. Recharging is

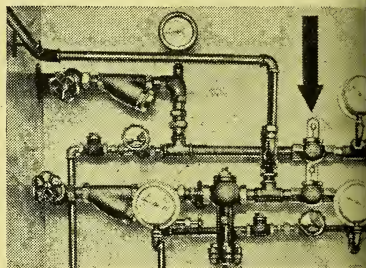


R.S.Q. standard 2-gall. fire-extinguisher

carried out in about thirty seconds by refilling with water and inserting a fresh sealed container of carbon dioxide gas.

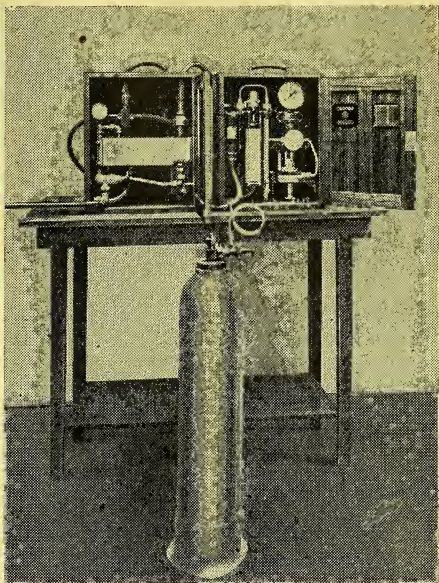
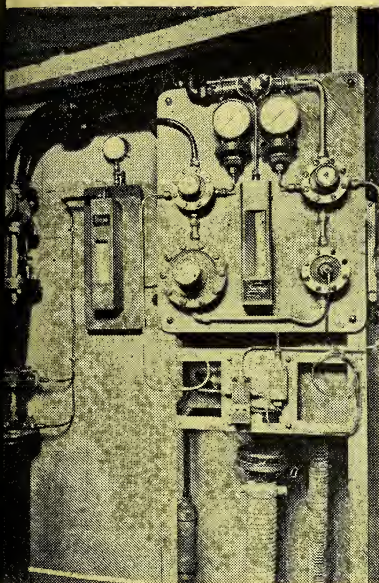
Flow Indicators in Hot Water Supply.—In the operation of hot-water supply circuits in chemical and other factories much improved results can be obtained by using scientific control equipment. The various Arkon specialties of Walker, Croswell &

Co., Ltd., Cheltenham, Glos, particularly the flow indicator and valve-position indicator, are of special interest in this connection. The strainer is also of considerable importance. All can be used in conjunction



Arkon flow indicators

the firm's Leonard-thermostatic steam hot-water and cold-water mixer, where the temperature is maintained automatically at any desired figure irrespective of variations in the temperature and pressure in both the hot and the cold supplies. An Arkon flow indicator for water or liquids, supplied in seven different standard sizes for $\frac{1}{2}$ to 3-in. pipes, consists of a cast-bronze or gunmetal body, screwed into the pipe line. Included is a small dome, with vertical rotating spindle in having a circular chromium-plated disc attached which rotates at a rate in proportion to the flow, and is visible at a distance. In the casing is a small horizontal bronze impeller, which operates the vertical spindle, the instrument being suitable for pressures up to 40–50 lb. per sq. in., though the dome is made of specially tough glass that has been tested hydraulically above 500 lb. per sq. in. The valve-position indicator, for valves on pipe lines used for all liquids and gases, consists of an arrangement fixed on the valve handle embodying a dial graduated into twenty divisions, a pointer, and provided with a thin brass red sector. When the valve is closed the red sector is invisible; when it is fully open the dial is entirely red. Any intermediate position, therefore, of the valve is shown at a glance from a considerable distance by the proportion of the total circle occupied by the red sector. In a battery of pipes and valves, therefore, by using both contrivances the person in charge can tell at a glance whether the flow is in correct amount, and to what extent the various valves are



Left, Large industrial Chloronome equipment for chlorinating water, capacity 150 lb. chlorine hourly. Right, Portable Chloronome set with injector device coupled to cylinder of chlorine.

and. The strainer referred to is in the form of a small fitting, generally screwed into the pipe line, having a projecting portion at the bottom, which contains a cylindrical screen, inclined at an angle, through which the water, steam, gas, compressed air or other fluid passes, whilst the separated solid particles fall to the bottom by gravity. From time to time the end cover is removed and the screen taken out to clear the separated material. Sizes are available to suit pipe lines within the range of 1/2 to 8 in. diameter, suitable for pressures up to 150 lb. per sq. in. The standard hole in the screen is $\frac{1}{8}$ in. diameter.

Chlorination of Water.—A range of apparatus designed for emergency water sterilisation is issued by the Paterson Engineering Co., Ltd., Windsor House, Finsbury Way, London, W.C.2. A small portable Chloronome set is contained in two boxes with handles for carrying, and doors at back and front. One box contains the instrument panel, with a direct-reading meter showing quantity of chlorine discharged. By means of pressure-reduced gas in series the chlorine gas contained in the cylinder is discharged continuously at the desired rate. In this box also are spare meter tubes, scales for altering the capacity of the instrument, and a

testing-set to determine at a glance if there is any excess chlorine in the treated water. The second box, connected to the first by flexible tubing, contains apparatus whereby the measured supply of chlorine gas from the first box is made into a solution in water, and the solution then discharged to the town's supply, using for the purpose a small injector device that can be operated either by an existing source of water under pressure (the town's supply), or if necessary by the use of a separate small pump operated by a direct-coupled petrol engine or electric motor. Included in the equipment is 20 ft. of flexible delivery hose for discharging the aqueous solution of chlorine in water to the sterilising point. In the chemical and allied industries a trouble frequently encountered is the gradual growth in pipes, jackets, towers, and other cooling spaces, of organisms, chiefly algae and protozoa types, which form a slimy deposit. This deposit, which possesses pronounced insulating properties, reduces the efficiency of the cooling water. The remedy, treatment of the cooling water with chlorine gas in measured traces, is made available with other apparatus issued by the company, by which chlorine gas is admitted continuously at any desired pressure rate.

NATURAL AND SYNTHETIC RUBBERS

A PAPER on "Rubber: Natural Versus Synthetic," given by Mr. S. S. Pickles, D.Sc., to members of the Royal Society of Arts, was reproduced in the Society's "Journal" for April 16 (p. 256). Dr. Pickles compared and contrasted natural and the so-called synthetic rubbers, including under the definition of synthetic rubber any organic material comparable in elasticity with natural rubber.

Molecular Structure

According to modern conceptions, said Mr. Pickles, rubber molecules were considered to consist of groups of atoms linked together to form long chains. There might be as many as 4,000 of these groups in one molecular chain, as supposedly in natural rubber. The individual groups were known as nomomers and the chain structures as polymers. In natural rubber, and possibly in some synthetics, the same grouping occurred in orderly repetition along the whole length of the chain. In other synthetics two or more nomomers or types of groups were present and could be regarded as taking their places side by side in alternative sequence. Such structures were known as "co-polymers." The properties of synthetic products obtained depended upon (1) the type of the individual grouping, (2) the manner of linking, and (3) the length of the chains. "General purpose" synthetic rubbers were those which, broadly speaking, were similar to natural rubber in composition, i.e. they were hydrocarbons and were intended to replace natural rubber in its general applications. To this group belonged the numbered Buna rubbers, the American and German Buna "S" type rubbers, Russian "S.K.A." and "S.K.B.," Hycar "T.T." and the butyl rubbers. "Special purpose" synthetic rubbers were those which, whilst retaining the typical rubber characteristics, possessed in addition definite superiority in certain specific properties, e.g. in petrol and oil resistance, resistance to heat, oxidation, etc. In this group were the Neoprenes, Perbunans and Thiokols.

Physical Properties

An important consideration to the user was the density or specific gravity of the raw product. In this respect the advantages lay with natural rubber and the "general purpose" synthetics.

The specific gravity figures are:—

Natural rubber	} 0.91 to 0.93
Buna "S"	
Butyl rubber	
Perbuna, Hycar OR, etc.	
Neoprene	0.97
Thiokols	1.25
	1.34 to 1.60

The following values of maximum tensile strength of vulcanised carbon black compounds had been given:—

	Load at break	Elongation
	kilos per sq. cm.	per cent.
Natural rubber ..	350	650
Buna 85	175	600
Buna 115	200	700
Buna "S"	280	650
Neoprene	290	760
Perbunan	320	600
Hycar "OR"	300	510
Thiokol "RD" ..	220	530
Thiokol "A"	60	370
Thiokol "D"	120	610

Tyres from Russian butadiene rubber had been claimed to have far superior abrasion resistance to that of comparative tyres made from natural rubber. It has been claimed that tyres made from German Buna S. rubber had a 25 to 35 per cent advantage in abrasion resistance over the best type of natural rubber tread.

One method adopted for estimating the effect of oils and other organic liquids on rubber was to determine the amount of swelling which took place when the sample to be tested was immersed in the liquid for a specified time. The following table shows the percentage volume increases of natural rubber when immersed in various liquids for eight weeks at room temperature:—

	Natural rubber	Neoprene	Perbunan	Thiokol A
Gasolene ..	230	8	40	0
Paraffin oil ..	140	—	3	—
Diesel oil ..	120	—	15	—
Transformer oil ..	150	—	5	—
Benzene ..	360	160	210	7
Ethyl ether ..	130	50	50	—
Linseed oil ..	100	—	20	—
Turpentine ..	300	90	50	0
Carbon tetrachloride ..	670	160	220	0

Experiments have shown that both in regard to water and air permeability, synthetic rubbers were in most cases quite as satisfactory as natural rubber, the oil-silencing types being generally superior.

Processing

There were two main processing difficulties. The first of these was the difficulty of plasticising the material to get it into suitable condition for compounding and manipulating. Many of the synthetics were much more difficult to break down than natural rubber and this involved greater power consumption, loss of output, or the installation of more machinery and increased costs. The second difficulty was that of obtaining that tackiness or adhesiveness in the mixed product which was so necessary when building articles from sheets or plies. Most synthetics were "drier" than natural rubber after mixing. If good cohesion were not obtained, there was a lack of consolidation and lamination was liable to occur, which might involve premature breakdown of the article under service conditions.

Sources of Raw Materials

There were three main sources of the basic materials from which most of the world's synthetic rubber was nowadays made, viz., alcohol, petroleum and acetylene. To obtain alcohol in sufficiently large amount would require tremendous quantities of sugar, grain or potatoes, all valuable commodities. Petroleum was not found in any large quantity in these islands. The materials for the production of acetylene, i.e., coal and lime, were present in large quantities, but for the making of carbide high temperatures were necessary, involving the large-scale generation of electrical energy. This, to be economical, called for cheap power.

TRADE MARKS

from "The Trade Marks Journal," April 7)

GEORGE AND THE DRAGON square plaque design; for germicides (not for human use), being preparations of tar acids (5). By Low Temperature Carbonisation, Ltd., Coalite Works, Gawber, nr. Barnsley. 620,937 (Associated).

EMBLEM"; for all goods except medicinal oils (5). By May & Baker, Ltd., Dagenham, Essex. 621,726 (Associated).

JOHN'S FRUIT SALT" on design incorporating weathercock, words "first thing every morning," etc.; for medicinal saline preparations for human use (5), and for dry preparations for making beverages (32). By J. C.

Eno, Ltd., 68 Pall Mall, London, S.W.1. 621,844-45 (Associated).

"EZOX"; for medicated preparations for the feet (5). By Stablond Laboratories, Ltd., trading also as Home Health Services, 128-34 Baker Street, London, W.1. 621,972.

"TRICIN"; for fumigant insecticides and insect-repelling preparations (5). By Imperial Chemical Industries, Ltd., Wexham Road, Slough, Bucks. 622,020.

"POSEDRIN"; for pharmaceutical substances (5). By Roslin Chemicals, Ltd., 14 Waterloo Place, London, S.W.1. 622,170.

"TRIGEST" and "PACIMAX"; for pharmaceutical preparations and substances (5). By The Dubarry Perfumery Co., Ltd., Goldstone Laboratories, Hove Park Villas, Hove, Sussex. 622,339-40.

"PROTEX"; for articles of rubber for prophylactic purposes (10). By Harrison Kent, Ltd., Leeson's Hill, St. Mary Cray, Kent. 620,264.

"GRAPE FRUIT SQUASH" with oval design incorporating glass of squash and words "refreshing" and "invigorating"; for grape fruit squash (32). By W. J. Bush & Co., Ltd., 28 Ash Grove, Hackney, London, E.8. 621,153-54 (Associated).

MEDICAL ABSTRACTS

Infection from Nasal Droppers.—Nasal solutions in bottles fitted with nasal droppers were found by Gompertz and Michael ("Journal of the American Medical Association," 1942, 118, 1287) to be contaminated with *Staphylococcus aureus* after one week's use. Repeated introduction of the dropper into the nostrils was found to introduce mucus, debris and bacteria into the solution, which otherwise would have remained sterile.

Foot-and-Mouth Disease in Man.—Two cases quoted by Duglosz in the "British Medical Journal" (1943, II, 189) are taken as demonstrating the occurrence of foot-and-mouth disease in man. Characteristic findings are headache, general weakness, and pain in the extremities. About the third day excessive salivation and superficial ulceration of the oral mucous membrane and vesiculation of the skin around the mouth ensue. Later the vesicles appear on the palms and soles and around the nails, being preceded by cherry-coloured erythema. The vesicles contain a turbid serous fluid. The temperature is high at first and falls after the appearance of the vesicles, returning to normal by the second week. A third case was described by MacLeod (II. 300), who administered a total of 12 gm. sulphapyridine, together with antiseptic mouthwashes. Temperature and pulse returned to normal in four days.

TRADE REPORT

Spot quotations for pharmaceutical chemicals, crude drugs and essential oils represent the prices for wholesale quantities of standard quality. C.i.f. quotations do not include marine war risk insurance and other abnormal charges payable in the present emergency.

28 Essex Street, W.C.2, April 21

WITH the holiday break at hand the markets have remained generally quiet but individual products are receiving a fair amount of attention from buyers. Supplies of imported products are in many instances short, and in some cases there are no stocks available. It is evident that licences to import are now only likely to be granted where the goods are considered by the authorities to be essential for medical purposes. Quite recently an importer who applied for a licence to bring in a parcel of SENEGA received a reply to the effect that "the Ministry of Health and the Therapeutics Requirements Committee of the Medical Research Council take the view that this drug is not of sufficient medical importance to justify importation in war-time." Meanwhile, stocks of senega have been completely cleared, and there is plenty of inquiry from manufacturing druggists. The few changes in prices recorded are of very minor importance but they are almost entirely concerned with advances. The firm tone in these markets is due chiefly to limited supplies rather than to keen demand.

IN PHARMACEUTICAL CHEMICALS there is little to comment upon, apart from a range of increased prices for PULV. BISMUTH. Co., N.F. Business continues routine under the various controls. The volume of business being done in CRUDE DRUGS has been limited by the stocks available or due to arrive in the near future. Prices are all steady to firm with the following movements in values recorded: Sumatra BENZOIN has advanced. Some slightly dusty ERGOT has sold at full prices. Sudan GUM ACACIA continues in very short supply and some Kordofan gum is now offered afloat at a landed price. Rather more business for MENTHOL is reported and sellers are firm at the slightly better quotations. There has been some export demand for RHUBARB. In the ESSENTIAL OILS markets conditions remain very quiet indeed but this marked lack of business is chiefly due to the paucity of stocks and little in the way of improvement in this direction is to be hoped for under present import conditions.

Pharmaceutical Chemicals

ASPIRIN.—Makers' prices per lb. in quantities of not less than one cwt. are as follows (containers in brackets): 3s. 5d. (1-lb.); 3s. (2-lb.); 3s. 3½d. ((4-lb.)); 3s. 2½d. (7-lb.); 3s. (14-lb.); 3s. 1½d. (28-lb.).

BROMIDES.—Makers quote 28-lb. lots POTASSIUM as follows (containers in brackets): 3s. 1½d. (28-lb.); 3s. 2½d. (14-lb.); 3s. 2 (7-lb.); 3s. 3½d. (4-lb.); 3s. 5½d. (1-lb.). SODIUM 3d. per lb., extra; AMMONIUM, 2½d. per lb. extra.

CREAM OF TARTAR.—British makers' prices 302s. per cwt., less 2½ per cent. discount.

GLYCERIN.—Prices for small quantities as follows: 56-lb. tin, 99s.; 14-lb. tin, 100s. per cwt., subject to 2½ per cent. discount twenty-eight days.

HEXAMINE.—One-cwt. lots of free-run crystals may be had at about 2s. 3d. per cwt. fine crystals, a few pence less.

METHYL SALICYLATE.—Makers' quotations are steady, as follows: Five cwt., 1s. 10d. per lb.; one cwt., 1s. 11½d.; smaller lots 12s. 6d. per lb.; bottles, 2s. 1½d. per lb.

PHENOLPHTHALEIN.—Makers' prices remain steady at the following rates per lb.: 14 lb., 4s. 6d.; 7 lb., 4s. 5d.; 14 lb., 4s. 28 lb., 4s. 3d.; 1 cwt., 4s. 2d.

PULV. BISMUTH CO., N.F.—Higher prices announced as follows:—

In containers of	1 lb.	4 lb.	7 lb.	28 lb.
	s. d.	s. d.	s. d.	s. d.
1 lb. to 4 lb. ..	2 7½	—	—	—
4 lb. to 7 lb. ..	2 6½	2 5	—	—
7 lb. to 14 lb. ..	2 5½	2 4	2 3	—
14 lb. to 28 lb. ..	2 4½	2 3	2 2	—
28 lb. to 1 cwt.	2 3½	2 2	2 1	2

Terms net one month.

SANTONIN.—Home-trade prices are as follows: 10 kilos and over, £61; not less than 5 lbs. £62; 2-4 kilos, £63; 1 kilo, £64; 500 gr. £65; 250 grams, £66; 100 grams, £67; 50 grams, £68 per kilo. Carriage for in United Kingdom.

TANNIC ACID.—About 8s. to 8s. 3d. per cwt. would be the present price, as to quantity.

TARTARIC ACID.—British makers quote 3s. 6½d. per lb., less 5 per cent. discount.

TERPENEOL.—May be had for medicinal purposes at 3s. 6d. to 4s. per lb., as to quantity.

VANILLIN.—Steady at previous rates: clove oil or guaiacol, 5 cwt., 22s. 6d. per cwt., 22s. 9d.; 56 lb., 23s.; less than 56 lb., 23s. 3d.

Crude Drugs

AGAR.—Price of Kobe No. 1 used for bacteriological purposes remains at 65s. to 70s. per lb.

ALOES.—Prices for Cape are fully maintained. Limited inquiry. Spot, 67s. 6d. per cwt., ex re. No trace of any Curaçao offering on the market.

BALSAMS.—Small supplies of *Tolu* may be had on spot at 10s. 3d. per lb. *Canada* is difficult to locate and would be worth 10s. per lb. *Peru*, available on spot at 8s. 6d. per lb. *Copaiba*, unavailable.

BISMUTH METAL.—High-grade metal is steady at 7s. 3d. per lb. for minimum 5-cwt. lots.

BUCHU.—No spot supplies are available to meet the continued demand.

CAMPHOR.—Market has been quiet: Chinese, spot, 11s. 6d. per lb.; crude, 92 per cent., 11s. 6d.; Japanese slabs, 12s. English synthetic may be had by approved buyers at 8s. per lb.

CARDAMOMS.—No change to report, business of no importance. Aleppy seed, spot, 6s. 6d. per lb.; shipment, 6s. 9d., c.i.f.; Aleppy greens, spot, 5s. 6d.; shipment, 5s. 9d.; split seed, spot, 5s. 3d. to 5s. 6d. per lb.

CHAULMOOGRA.—*Hydnocarpus* oil, 1s. 3d. per lb. in bond Liverpool.

CHILLIES.—Mombasa, spot, 100s. per cwt.; other varieties are not offered.

COVES.—Zanzibar, spot, 1s. 5½d. per lb.; second quality, to arrive, 1s., c.i.f.

EGG.—Rather more inquiry is being received and up to 5s. per lb. has been paid for suitably dusty lots.

GUAIACUM ACACIA.—Firm at recent advances. Fair inquiry, but supplies very moderate. Kordofan crushed sorts, afloat, now offered at 84s. per cwt., landed.

HENBANE.—East Indian low-testing may be had on spot at 200s. per cwt.

HECACUANHA.—Continues firm and in fair demand on small parcels. Good-testing Matto Grosso, spot, 6d. per lb. Minas, not up to B.P. standard, 10d. per lb., ex store. Prices of Ext. IPECAC. have been advanced on April 6 by 2s. per lb.; current rates are as follows: Winchester, B.P., 10d.; under three, 30s. 6d. per lb.; three and under six, 30s.; six and under twelve, 27s. 6d.; twelve and over, 28s. B.P., 1914, under three, 20d.; three and under six, 28s.; six and under twelve, 27s. 6d.; twelve and over, 27s. 6d.; all prices quoted are on a net basis.

HEMBRANDI.—Dealers would require 60s. per cwt. for small spot supplies.

LAP.—Brazilian root, 16 per cent. resin, 105s. per cwt.; 13 per cent. resin, 90s.

MAALA.—Spot, 5 per cent. ash, 2s. per lb. Supplies are meagre.

QUORICE ROOT.—Anatolian root is offered on spot at 80s. per cwt.

SAINTHOL.—Rather more business of small lots being done. There are buyers at 75s., but

sellers are wanting 76s. to 77s. 6d. per lb., ex store.

MERCURY.—Controlled values unchanged: £68 10s. to £69 15s. per bottle for quantities of over 7 lb.

MYRRH.—Aden sorts, steady on spot, £18 to £20 per cwt., according to quality.

NUTMEGS.—West Indian, wormy and broken, spot, 1s. 6d. per lb.; sound unassorted, 1s. 9d.

NUX VOMICA.—Cochin, washed and garbled, spot, 42s. 6d. per cwt., ex warehouse Glasgow; Cocanada, spot, 37s. 6d. per cwt., also ex warehouse Glasgow.

ORANGE PEEL.—Bitter quarters may be had on spot at 3s. 3d. per lb.

PAPAIN.—Nominal on spot at 17s. 6d. per lb.

PEPPERS.—Maximum prices of whole, not picked over or cleaned, on sale to processors are 1s. 4d. per lb. for white, and 1s. per lb. for black, both duty paid.

The final forecast report on the pepper crop in the Madras Province for 1942 ("Indian Trade Journal") states that the area under pepper in 1942 in Malabar and South Kanara is estimated at 108,200 acres (99,500 acres in Malabar and 8,700 acres in South Kanara) as against the final area of 105,019 acres (96,368 in Malabar and 8,651 acres in South Kanara) in the previous year. The condition of the crop is satisfactory and the seasonal factor is estimated to be normal in both the districts as against 95 per cent. in Malabar and 100 per cent. in South Kanara in the previous year. On this basis, the yield is estimated at 10,390 tons (9,550 tons in Malabar and 840 tons in South Kanara) as against 9,680 tons (8,850 tons in Malabar and 830 tons in South Kanara) estimated in the previous year.

PIMENTO.—Sellers on spot at 1s. 8d. per lb.; shipment price is not quoted.

PODOPHYLLUM.—Spot, 14½ per cent., 75s. per cwt.; 17 per cent., 87s. 6d.

PSYLLIUM SEED.—Spot supplies of Indian seed are available at 1s. 3d. per lb., ex store.

QUILLAIA BARK.—Crushed or cut quoted on spot at 115s. per cwt.; natural, afloat, 80s. per cwt., c.i.f.

RHUBARB.—Some business is recorded for export to the Colonies. Rough-round, good quality, 7s. 6d. to 7s. 9d. per lb.

SAPONIN.—Spot, 7s. 6d. per lb., ex store; shipment, 6s. 6d., c.i.f.

SEEDS.—Quiet conditions obtain; prices unchanged. **CORIANDER.**—Indian, 82s. 6d. per cwt. **CUMIN.**—Maltese, spot, 135s.; Indian, 125s.; English, 150s. **DILL.**—Spot, quoted at 180s. **FENNEL.**—Indian, a little available at 100s. to 110s. **FENUGREEK.**—90s. **MUSTARD.**—Controlled (see C. & D., November 28, 1942, p. 566).

SENEGA.—Demand continues, with the market cleared; applications for import licences have been refused.

SQUILL.—Portuguese and Indian bulbs may be had on spot at 95s. and 75s. per cwt., respectively.

STROPHANTHUS.—Quiet, steady business; prices unchanged. Kombé seed, 100 per cent., spot, 10s. 6d. per lb. for small lots; fair-sized orders can be taken at lower prices.

TRAGACANTH.—Steady on a quiet market. No. 1, white, £130 per cwt.; No. 2, white, £115; No. 3, white, £102; No. 4, white, £83; pale leaf, £73; amber leaf, £65; dark amber, £50; brown leaf, £45; red-and-brown leaf, £38; red leaf, from £32; light hoggy, from £17; woody and dark hoggy, £12.

WAXES.—Occasional limited inquiry; quotations are steady: **CARNAUBA.**—Fatty grey and chalky grey, spot, both quoted at 430s. per cwt.; **Primeira**, 520s., nominal. **BEES.**—Supplied only through the Association of Merchant Distributors of Beeswax.

Essential and Expressed Oils

ANISE (STAR).—The offerings remain negligible. The value for any drums would be 54s. per lb., ex store.

BAY.—Small supplies may be had on spot at about 12s. 6d. per lb.

BOIS DE ROSE.—Spot price remains at around 47s. per lb.

CAJUPUT.—In restricted supply on spot; price approximately 17s. 6d. per lb.

CASTOR.—Controlled prices for bulk supplies are as follows: "Firsts," £72 per ton, "Seconds," £70 per ton, naked ex works.

CEDARWOOD.—English oil may be had on spot at about 16s. per lb.

CINNAMON LEAF.—Dealers can supply small quantities at approximately 15s. per lb.

CITRONELLA.—Demand continues; Java, spot, 22s. to 24s. per lb.; Ceylon, 19s. to 20s.

CLOVE.—No change in English distillers' price of 14s. per lb. for ordinary quantities.

COCONUT.—Controlled prices of bulk supplies are as follows: Crude, £36 12s. 6d. per ton; refined deodorised, £40; refined hardened deodorised, £44; all naked ex works.

COTTONSEED.—Official price of refined deodorised, £49 per ton, naked ex works.

EUCALYPTUS.—Price of spot oil, 70 to 75 per cent., would be about 5s. 6d. per lb.

GINGERGRASS.—Small supplies may be had from dealers at about 24s. per lb.

GROUNDNUT.—No change has occurred in controlled prices at £48 to £54 per ton, naked ex works, according to grade.

LAVENDER.—Spot price of any good-quality oil would be in the region of 90s. per lb.

LEMONGRASS.—About 15s. to 16s. per lb. would be the present spot price.

LINSEED.—Controlled price of £46 10s. per ton for large bulk quantities of crude, naked ex works, is unchanged. Distributors' prices for ordinary quantities at rather higher rates.

PALMAROSA.—Spot price for small available supplies would be around 32s. 6d. per lb.

PATCHOULI.—Spot price of any good-quality oil would be in the region of 75s. per lb.

PENNYROYAL.—About 40s. per lb. would be the spot value of small supplies.

PEPPERMINT.—No change in this product business is restricted on account of lack of supplies. Any Eastern oils would be worth fully 90s. per lb., ex store.

PETITGRAIN.—Dealers offer small quantities on spot at about 25s. per lb.

RAPESEED.—Controlled price of crude remains at £54 per ton, naked ex works.

ROSEMARY.—Spot supplies are limited in price, if available, about 16s. per lb.

SASSAFRAS.—Any available spot supplies would be worth approximately 19s. per lb.

THYME.—High-quality, on spot, is valued about 25s. per lb., but lower-phenol-containing oils would be cheaper.

CORRESPONDENCE

Correspondents may adopt an assumed name but must in all cases furnish their real name and address to the Editor

Containers of Repulped Material

SIR,—The pill and tablet boxes now supplied have the appearance of being made from repulped material. As "repulped" containers were recently stated to be responsible for *Clostridium tetani* contamination of some sulphapyridine, should the makers of these boxes give some assurance that such boxes issued for pharmaceutical use are free from this danger? A popular type of seamless ointment box is frequently used by retail and hospital pharmacists as an easy and quick container for products which may subsequently be introduced in or applied to, wounds.

Yours faithfully,
F. C. B.

Appreciations

May we say that we are very much obliged to you for your most helpful co-operation and ask you to accept our cordial thanks for the interest you have taken.—J. S. & Co., Ltd., London, N.

We are in receipt of your letter and wish to thank you for the trouble you have taken with our queries and for the very helpful information given. We are very much obliged to you.—L.-M., London, S.E.

Much satisfaction has been expressed by Scottish chemists at the announcement (*C. & D.*, April 3, p. 354) that you are compiling a packed proprietary article price list. The great need for such a list has long been obvious, and as usual *C. & D.* has come to the rescue.—L. H.

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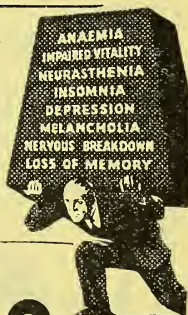


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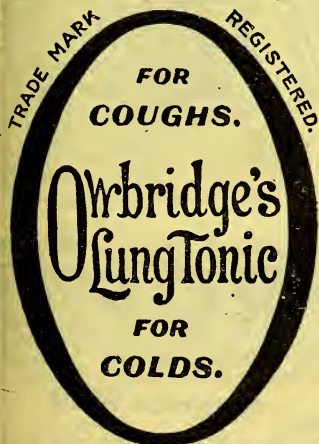
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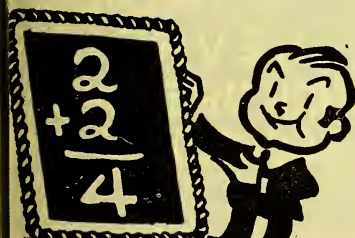
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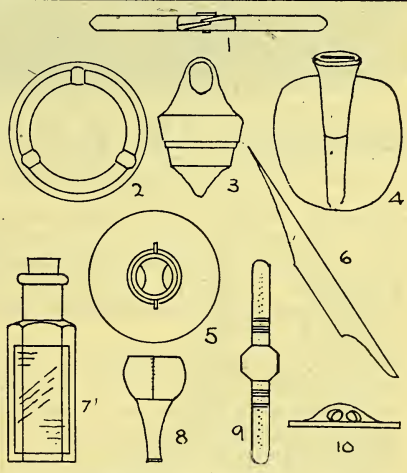
Here are 10 accurate drawings (not to scale)
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No. 7, of course, is in the mind of every Chemist.
Can you name the others?

Send your solution, even if not complete, within
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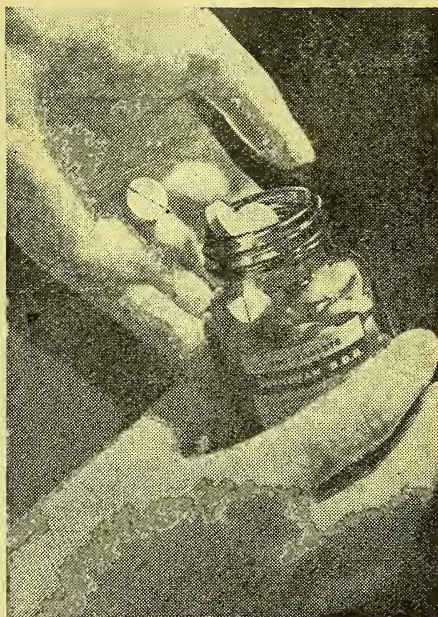
Third Prize: 1/2 doz. BROVON value £2 10s.



Correct solution of Crossword No. 2: 1. Bandage.
2. Syringe. 3. Epsom Salt. 4. Cloves. 5. Aloe.
6. Vaseline. 7. Borax. 8. Bromide. 9. Atomiser.
10. Salve. 11. Castor Oil. 12. Lavender.

Winners were: R. D. Arnold, M.P.S.I., Eire;
M. F. Burgin, M.P.S., York; W. J. Collins, M.P.S.,
Antrim; J. A. Hamilton, Ph.C., M.P.S., Belfast;
J. P. Myles, M.P.S.I., Eire; W. J. Rosie, M.P.S.,
Edinburgh; J. Shand, M.Ph.S., Buckhaven, Fife;
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Carbohydrates (Starch-free)	19.38%
Lecithin	1.4%
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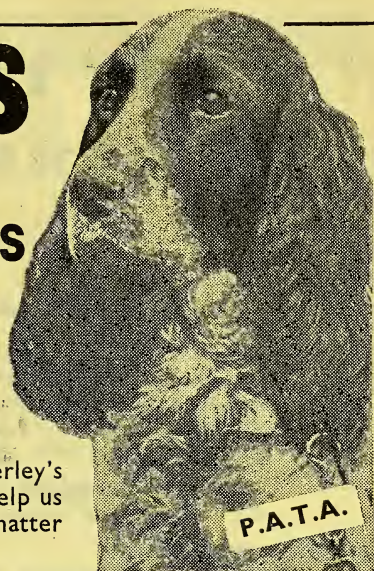
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The CHEMIST AND DRUGGIST

SUPPLEMENT

This Supplement is included in every copy of the Chemist & Druggist

APRIL 24
1943

28 ESSEX STREET, LONDON, W.C.2

Advertisements in this supplement must be prepaid and should reach us not later than **WEDNESDAY** week of issue. Box Office numbers cost 1/-. Late advertisements will be held over to following week

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40 words or less, 2d. for every additional word.

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